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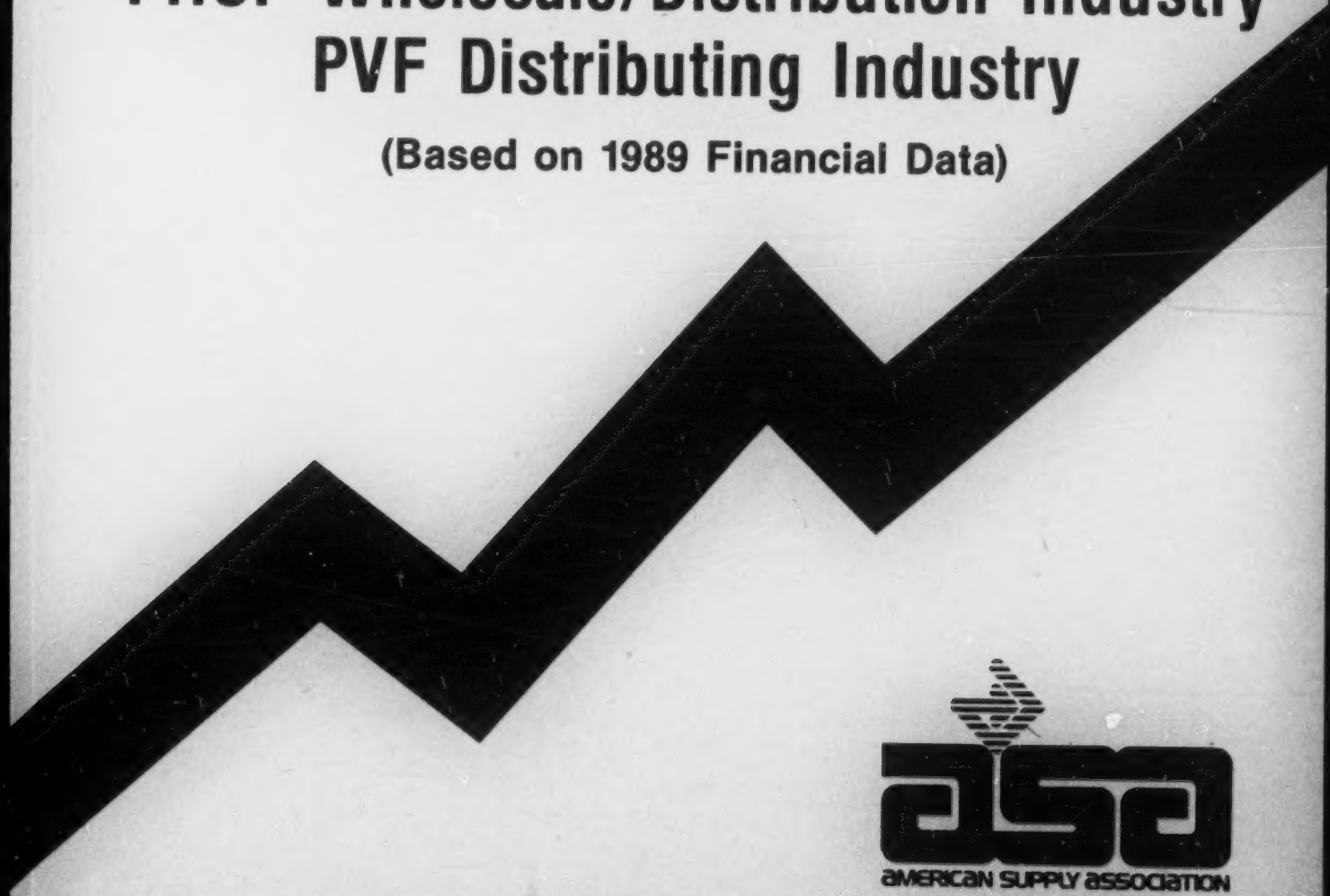
1990 OPERATING PERFORMANCE REPORT

for the

PHCP Wholesale/Distribution Industry
PVF Distributing Industry

(Based on 1989 Financial Data)



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by

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For the eighth consecutive year, the ASA **Annual Operating Performance Report** was compiled, tabulated and analyzed by Industry Insights, Inc. in cooperation with the American Supply Association and key industry members.

Industry Insights, headquartered in Columbus, Ohio, is a professional research and consulting firm providing management and marketing services to trade and professional associations and their members. The company specializes in industry operating surveys, compensation studies, educational programs and customized research services.

(Additional copies of the report are available from the ASA office)
Just call (312) 464-0090

About This Report

This 1990 American Supply Association **Operating Performance Report of the PHCP Wholesale/Distribution and PVF Distributing Industries** (based on 1989 financial data) represents the most complete, accurate and up-to-date data base of full-service plumbing, heating, cooling and piping (PHCP) wholesaler financial and operating data published anywhere. The information contained in this report is designed to provide easy-to-understand guidelines for identifying business performance improvement opportunities.

For the eighth consecutive year, the **Operating Performance Report** (OPR) was prepared by Industry Insights, Inc. of Columbus, Ohio, while working closely with the American Supply Association staff. Confidential survey forms (refer to the Appendix for a sample) were sent to ASA members in early March and 273 completed and usable responses were received, representing one of the largest data bases of respondents among any wholesale/distribution industry.

As in the past, this year's report includes comparative financial ratios and statistics by type of firm, sales volume size and high profit firms. In addition, building upon the historical information that has resulted from past ASA operating performance surveys, this year's study contains various nine year industry trend data, along with appropriate analysis. Such information is important for identifying shifts occurring within the industry which may be representative of future conditions.

New to the report are two sections entitled the Z score and Cash Management. These should further assist the wholesaler in managing his or her business.

Perhaps the most valuable feature of the ASA **Operating Performance Report** is that all firms participating in the survey automatically receive a confidential Company Performance Report. This report presents a company's own ratios and data computed in a manner consistent with those appearing in the industry report and displayed alongside the appropriate industry comparatives. (A representative page from a sample Company Performance Report is illustrated on the following page.)

As shown on any given line of the Company Performance Report, a firm's own data is included along with industry averages for firms of a comparative sales volume, type of business, geographic region, etc. Thus, the individual owner/manager is provided invaluable information without having to spend time and effort making the calculations manually. In addition, for any firm which participated in more than one consecutive ASA OPR study in recent years, the Company Performance Report includes multiple year **trend data** in graphical form. Also, once again, these highly confidential reports contain a computer-generated qualitative assessment of a company's situation, including some possible alternative courses of action.

SAMPLE

COMPANY PERFORMANCE REPORT

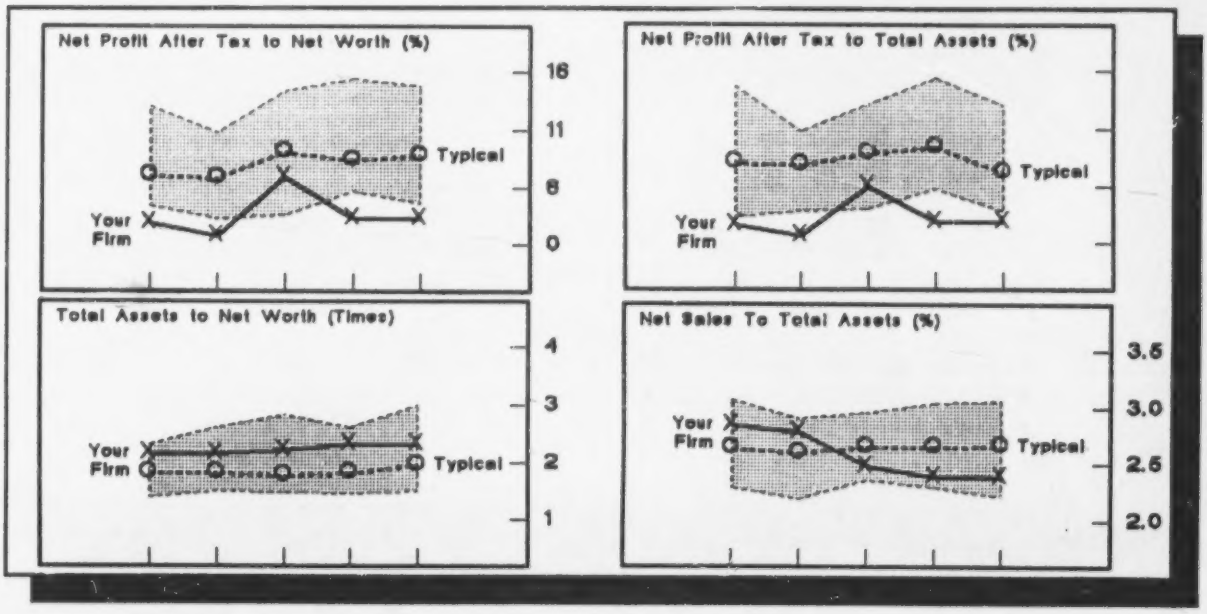
SUMMARY PERFORMANCE EVALUATION

Your Firm's Performance Compared to "All Similar Firms"

NET PROFIT AFTER TAX TO NET WORTH.....(WEAK)

Return on Net Worth (RONW) is one overall measure of company profitability, expressing the percentage return earned on the owner's investment in the business.

Your firm's RONW was below the lower quartile performance level, suggesting that further investigation is warranted to determine where profit leaks are occurring. While you may conclude that no significant problems exist, suggested areas of review are asset turnover, profit margin, and financial leverage (the three basic components of RONW).



Detailed Statistics

COMPANY NO. 500

NET SALES: $6,320,254

	YOUR FIRM	YOUR REGION TYPICAL	YOUR REGION MIDDLE RANGE	HIGH PROFIT PLUMBING & INDUSTRIAL FIRMS TYPICAL	HIGH PROFIT PLUMBING & INDUSTRIAL FIRMS MIDDLE RANGE
OVERALL PERFORMANCE MEASURES					
Net Profit After Tax to Net Worth	2.6 %	12.7	9.3 - 22.2	14.4	10.1 - 18.2
Total Assets to Net Worth	2.3 TIMES	1.6	1.4 - 2.5	1.4	1.3 - 1.4
Net Profit After Tax to Total Assets	1.1 %	7.8	7.1 - 11.4	11.8	7.4 - 13.1
Net Sales to Total Assets	2.4 TIMES	2.6	2.2 - 3.0	2.4	1.8 - 2.6
Net Profit After Tax to Net Sales	0.5 %	4.1	2.5 - 5.2	4.9	4.1 - 5.3
Net Profit Before Tax to Net Worth	3.6 %	21.6	12.3 - 29.7	18.8	16.3 - 23.6
Net Profit Before Tax to Total Assets	1.6 %	12.1	9.2 - 16.5	13.7	11.8 - 15.8
EBIT to Total Assets	4.4 %	14.4	12.4 - 18.1	15.0	13.3 - 18.2
SALES ANALYSIS					
Net Sales($000)	$6,320	12,852	7,880 - 17,448	10,819	7,658 - 15,938
Percent Sales Change from Prior Year	7.4 %	6.6	1.8 - 11.1	6.0	-1.6 - 11.1
Sales Mix:					
Direct Sales	11.0 %	9.6	5.8 - 14.4	9.6	3.8 - 15.5
Warehouse Sales - Counter and Delivery	89.0 %	90.4	85.6 - 94.2	90.4	84.5 - 96.3
TOTAL SALES	100.0 %	100.0	100.0 - 100.0	100.0	100.0 - 100.0
PRODUCT SALES MIX					
Plumbing Supplies & Equipment	30.0 %	46.1	37.0 - 57.2	47.6	33.0 - 50.0
Heating & Cooling Supplies & Equipment	9.0 %	22.7	5.0 - 35.0	18.9	3.0 - 28.0
Industrial P-V-F (Pipes-Valves-Fittings)	30.0 %	22.2	0.5 - 35.0	27.1	15.0 - 35.0
Other Industrial Supplies & Equipment	30.0 %	3.4	0.0 - 5.0	3.4	0.0 - 3.0
Other Products	10.0 %	5.6	0.0 - 10.0	3.0	0.0 - 6.0
TOTAL SALES	100.0 %	100.0	100.0 - 100.0	100.0	100.0 - 100.0
GROSS MARGIN					
Gross Margin on Net Sales	24.8 %	26.3	24.4 - 29.1	26.8	25.4 - 29.4
Gross Margin on Direct Shipments	14.0 %	15.0	12.8 - 16.5	Insufficient Data	
Gross Margin on Warehouse Sales	26.1 %	29.6	28.4 - 32.4	Insufficient Data	

Wouldn't it be great to track your firm's performance month-to-month and compare your results to industry averages?

... Now you can with ProfiTrak

ProfiTrak, an easy-to-use software program, makes it possible for you to monitor your company's progress on a timely basis. Designed for IBM© PC/XT/AT or compatible computers, **ProfiTrak** will help you determine:

- Where your firm is wasting money.
- If you are as profitable as you should and can be.
- If your employees are productive.
- If your firm is financially strong.
- If your receivables are well-managed.

ProfiTrak is Unique . . .

ProfiTrak is specifically designed for your firm and your industry. Based on your participation in the association's recent financial operating performance survey, your confidential **ProfiTrak** diskette will be sent to you already containing your firm's results and appropriate industry comparatives. Even if you did not participate in the association survey, you can easily enter your numbers into **ProfiTrak** and the program will calculate your ratios and make comparisons to industry norms. Now you won't be wasting valuable time trying to customize the software to your industry. Also, since your **ProfiTrak** diskette is self-contained, there is no need to adapt to a complicated spread-sheet program.

Heard reports of other software that have fallen short? . . .

It's unfortunate that many companies have invested in costly software packages that are too generic to do any good. But because **ProfiTrak** is *uniquely* and *confidentially* prepared for *your* firm, you can be sure it's a tool that will provide a better understanding of your operations — and ultimately improve your bottom line.

ProfiTrak is as easy as turning on your computer.

Because **ProfiTrak** is so simple to use (completely menu-driven with on-screen help) — you can begin implementing the program the day you receive it. . . . But don't be fooled by **ProfiTrak's** simplicity. It is a powerful management tool with many built-in features (see inside . . .) You will come to think of **ProfiTrak** truly as your Desktop Financial Partner.

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How To Order ProfiTrak

Simply cut out and mail the order form along with your check or money order. Once ordered, your confidential **ProfiTrak** diskette, along with a "get acquainted" manual and registration card (for annual update/program enhancement information) will be sent to you within 10 working days.

Computer Requirements:
IBM™ PC/XT/AT or compatible, with at least 256k memory, DOS 2.0 and up; monochrome or color monitor.

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Your Desktop Financial Partner

Please return this order form and your check or money order to: American Supply Association

☐ I need ProfiTrak now. Enclosed is my check or money order, computed as follows:

$_____ Association Member Price ($195)
$_____ Non-Member Price ($295)
$ 3.50 Shipping & Handling
$_____ Illinois residents add sales tax
$_____ TOTAL

☐ I am very interested, but I have some questions. Please call me.

☐ YES, I participated in the OPR Survey.

☐ nO, I did not participate in the Survey.
My Sales Volume is:
____ Under $3 million
____ $3 - $7 million
____ $7 - $12 million
____ Over $12 million

My Product Category is:
____ Plumbing Supplies & Equipment
____ Industrial P-V-F
____ Plumbing Supply & Industrial P-V-F
____ HVAC or other

Please check one:
____ 3-1/2" diskette
____ 5-1/4" diskette

Name/Title: _____

Company Name: _____

Shipping Address: _____

City/State/Zip: _____

Business Phone: _____

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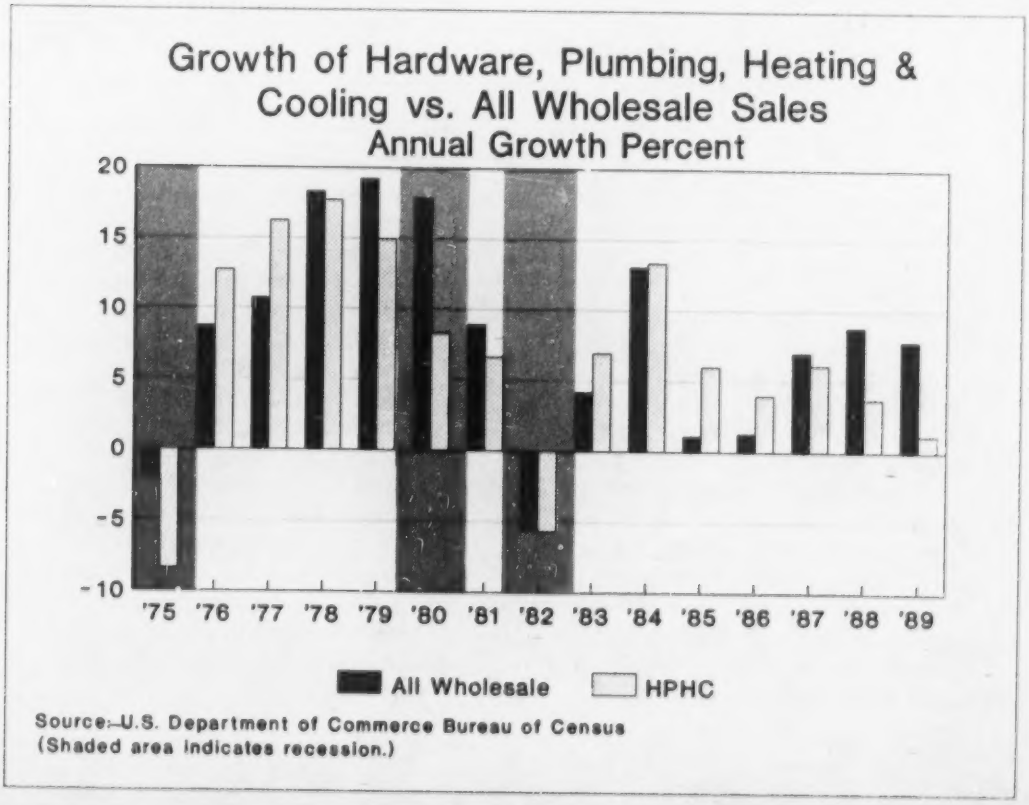
The Economy and Wholesaling

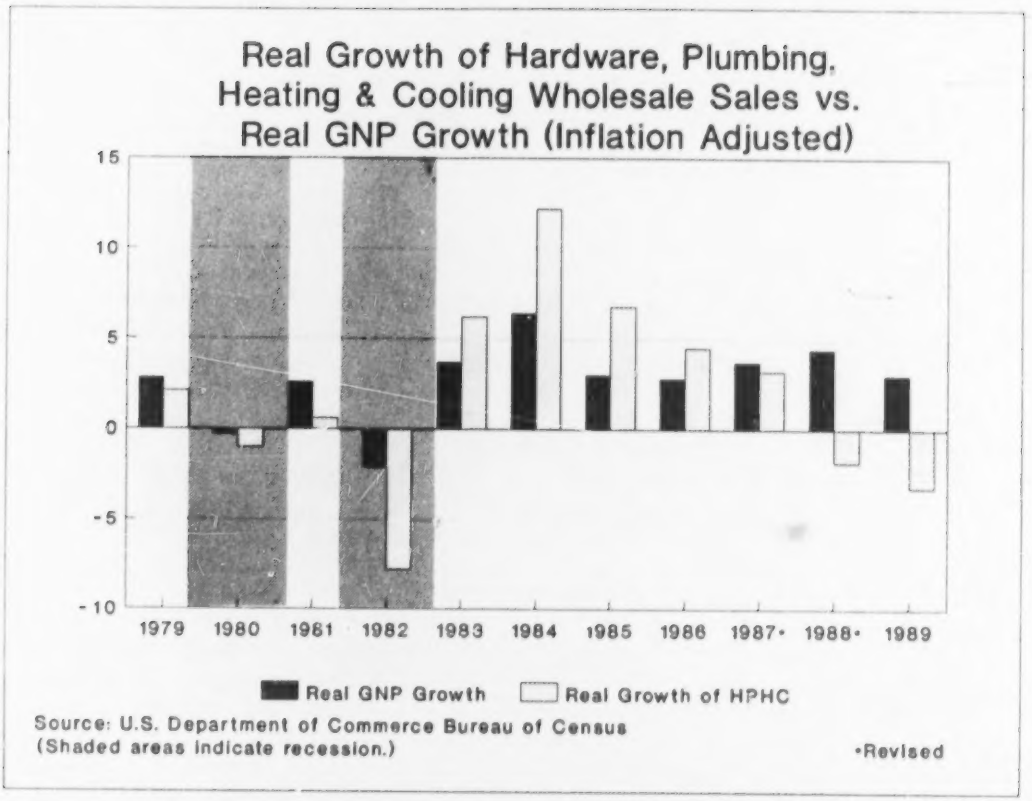
Nineteen eighty-nine at first appeared to be a transition year for the economy, as most economists predicted an end to seven years of prosperity. The prime rate reached 11.5% in the second quarter of 1989, housing starts fell by 114,000 units, and auto sales declined by an inflation adjusted rate of -0.4%. Of course, the U.S. has yet to go into a recession but most industries suffered slower sales growth and less earnings in 1989 than in previous years.

According to the U.S. Department of Commerce, merchant wholesalers experienced a sales growth of 7.8% in 1989, down one percentage point from 8.8% the year before. Those wholesalers classified as Hardware, Plumbing, Heating and Cooling (HPHC) reported a sales growth of 1.2% in 1989, a slowdown from the 3.7% growth in 1988. The following graph clearly shows the downward trend in HPHC wholesale sales growth.

In viewing the graph, it is interesting to note that in periods immediately following the 1975 and 1982 recessions, HPHC sales grew faster than all wholesale sales. However, in the period right before the 1980 and 1982 recessions, HPHC sales grew slower than all wholesale sales which is the same situation that exists now; HPHC sales are growing slower than all wholesale sales. Could it be that a recession lies ahead in the near future? As always, nobody really knows.



Source: U.S. Department of Commerce Bureau of Census
(Shaded area indicates recession.)



Looking at HPHC sales growth in real terms (adjusted for inflation) we find that sales, as reported by the U.S. Department of Commerce, actually declined in 1988 and 1989. The above graph illustrates this trend, probably reflecting the soft housing market conditions that existed. ASA members who responded to this year's survey reported a median sales growth of 3.8% (before inflation), a significant slowdown from the 11.3% growth in 1988, and the lowest since the recession of 1982. **Plumbing Supplies & Equipment** firms experienced the slowest growth and **Industrial PVF** firms reported the highest growth while large firms tended to outgrow smaller firms. The chart on the following page clearly illustrates the slowdown in sales growth amongst all categories of PHCP and PVF wholesalers while the graphs on page 30 illustrate the historical growth rates for the four categories of ASA wholesalers.

One positive note however: According to the U.S. Department of Commerce, HPHC sales in the first quarter of 1990 grew at an annual rate of 4.3% or 2.3% after being adjusted for inflation.

The compound annual sales growth of hardware, plumbing, heating and cooling wholesalers over the last eleven years, according to the U.S. Department of Commerce, has been 4.9% (before inflation adjustments). As the chart on the next page indicates, this growth falls below that of other durable goods wholesalers and all wholesalers in general.

Real GNP grew 3.0% in 1989, which was somewhat slower than the 4.4% of 1988. It appears that 1989 was an uncertain year for the economy as the auto and housing industries experienced declines and other industries suffered slower rates of growth.

Median Sales 1989 vs. 1988	1989	1988
ALL PHCP WHOLESALERS	3.8%	11.3%
BY PRODUCT EMPHASIS		
Plumbing Equipment and Supplies	1.8%	8.5%
Industrial Pipes-Valves-Fittings (PVF)	12.1	18.8
Plumbing and Industrial PVF	4.1	10.2
HVAC and Other Emphasis	5.1	13.0
BY SALES VOLUME		
Plumbing Equipment & Supplies:		
Sales Less Than $4 Million	1.1%	7.7%
Sales $4 Million to $7 Million	0.0	10.4
Sales $7 Million to $12 Million	1.8	8.2
Sales Over $12 Million	3.7	10.1
Industrial PVF:		
Sales Less Than $5 Million	5.1%	10.8%
Sales $5 Million to $12 Million	10.5	17.1
Sales Over $12 Million	14.7	23.8
Plumbing and Industrial PVF:		
Sales Less Than $5 Million	2.2%	14.1%
Sales $5 Million to $9 Million	0.7	8.9
Sales Over $9 Million	7.8	10.2
HVAC and Other Emphasis:		
Sales Less Than $6 Million	-3.9%	10.2%
Sales $6 Million to $12 Million	1.9	13.0
Sales Over $12 Million	6.4	16.6

Annual Wholesale Sales Growth (%) 1979-1989	
All Wholesale Trade	6.2%
All Durable Goods Wholesalers	7.1
Electrical Goods	10.1
Motor Vehicles & Automotive Equipment	8.0
Furniture & Home Furnishings	7.4
Machinery, Equipment & Supplies	7.8
Hardware, Plumbing & Heating Equipment	4.9

Source: U.S. Bureau of the Census

How To Use This Report

The 1990 ASA **Operating Performance Report of the PHCP Wholesaler/Distribution and PVF Distributing Industries** has been designed to help wholesalers evaluate their own performance relative to that of similar companies in order to identify improvement opportunities. The statistics in this report represent broad performance "*yardsticks*" against which a company's performance can be measured.

Using this information, PHCP and PVF wholesalers can compare their own firm's financial and operating performance with: the industry as a whole; firms having the same general product emphasis; firms of a comparable sales volume; and the highest profit firms. Spotting significant differences between your own firm's performance and the industry composites can be the first step toward improving performance. Keep in mind, however, that deviations from industry norms do not automatically call for some action on your part. The most important thing to do is to be able to explain why your firm experienced significant deviations from the "*typical*" wholesaler in the industry.

In order to obtain maximum advantage from the information contained in this report while at the same time minimizing your analysis time and effort, we recommend you follow the step-by-step approach outlined below.

Step 1: Collect the Necessary Company Data

The first step in using this report is to gather all your financial and operating results for your 1989 fiscal year. Most of the needed data can be obtained from your company accounting records, but a small amount will have to be extracted from other sources such as personnel files, advertising records and the like. If you participated in the 1990 ASA **Operating Performance Survey**, this step has probably already been done.

Step 2: Calculate the Ratios

The second step is to compute all of the various performance measures for your firm that are included in this report using the data gathered in Step 1. **It is extremely important to calculate these ratios using the same formulas which were used to produce the ratios in this report.** These formulas, along with sample calculations of each measure, appear in the section of this report entitled, "Ratio Definitions and Sample Calculations," located in the Appendix.

For those companies who received a **Company Performance Report**, Step 2 has already been completed for them in an accurate, time saving manner. PHCP wholesalers that did not participate in the 1990 survey should strongly consider doing so in the future.

Step 3: Compare the Results

Next, compare your company's performance with the survey results of other firms in the industry. As you do so, several points should be recognized:

1. *A deviation between your firm's figures (for any performance measure) and numbers in the report is not necessarily good or bad. It merely indicates that additional analysis may be required.* As a rule, the larger the difference, the greater the need for further investigation.

2. In situations where large deviations do exist, it may be helpful to go back and calculate the same performance measure over the past several years to identify any trends that may exist.

3. The information in this report should be used as tools for informed decision making rather than absolute standards. Since firms differ as to their product emphasis, location, size, and other factors, any two firms can be successful yet have very different experiences with regard to certain performance measures.

UNDERSTANDING THE DATA

In order to use the information in this report to maximum advantage, it is important to understand *how the data is arranged* and *how to interpret them.*

How the Tables are Organized

The tables in this report are organized to include a number of important financial ratios for each relevant "grouping" of similar firms. In particular, the major "groupings" used include:

- All Reporting Firms--refers to the results of all firms responding to the survey.
- Product Emphasis Group:
  - Plumbing Supplies & Equipment Firms--those firms that derive over 50% of sales from plumbing products.
  - Industrial PVF Firms--those firms that derive over 50% of sales from Industrial PVF products.
  - Plumbing Supplies & Equipment and Industrial PVF Firms--those firms that derive more than 50% of sales from plumbing and industrial PVF products combined but less than 50% from either category alone.
  - HVAC & Other Emphasis Firms--those firms that cannot be classified in any of the above three groups; or those companies which derive less than 50% of sales from combined plumbing supplies and equipment, and industrial PVF.
- Product Emphasis Group by Sales Volume
- By Product Emphasis Group by High Profit Firms (refers to those firms whose before tax return on assets are in the upper quartile)
- Large Volume Firms (those with sales volume of $50 million & over)

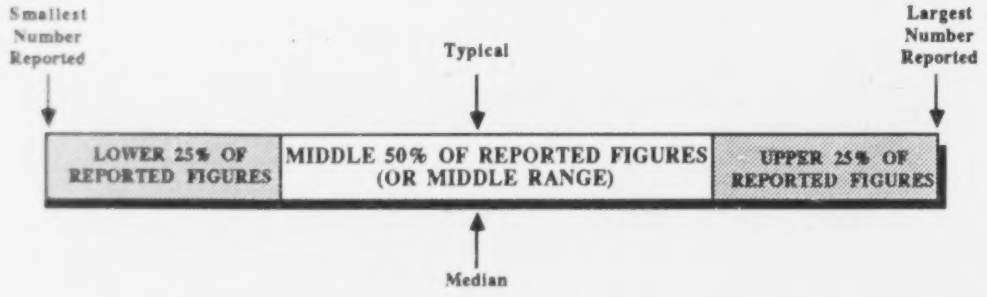
The table of contents shows specifically where each table can be found.

Interpreting the Numbers

Most of the performance indicators included in this study are reported on the basis of medians rather than arithmetical averages or means. Unlike the mean, the median is not distorted by a few unusually high or low values that may exist in the sample due to special circumstances. The "median" figure represents the mid-point of the figures for a particular measure, with one-half of the firms reporting figures above it and one-half below. Each median was computed independently based on the companies which reported for that item. As a result, **mathematical relationships do not always exist** when different ratios are used together in the calculation. For example, the median net sales minus the median cost of goods sold may not necessarily equal the median gross margin percent.

Also included for most of the performance indicators is the "Middle Range." This represents the experience of the middle 50 percent of all firms in the data grouping when items are arranged numerically from lowest to highest. In other words, the upper and lower limits on the "Middle Range" are simply the upper and lower quartiles respectively for that ratio.

Figures reported by responding members were not used unless they were in accordance with the survey instructions and definitions. In cases where the number of companies reporting was considered inadequate for the computation of a meaningful figure, blank spaces appear in the tables, or an "insufficient data" (ISD) notation is included.



Further insights into how to use this report are included in the Appendix in the section entitled: "Ratio Definitions and Sample Calculations." An important point to keep in mind when using this report is that *even relatively simple analysis of your company's own financials using the industry data for comparison can yield important insights into your business. You do not have to be a financial expert to benefit from this information.*

1990 ASA
Operating Performance Survey

Detailed Results

Executive Summary of Survey Results

As in past years, the 1990 *ASA Operating Performance Report* is organized as a set of easily referenced industry performance tables (provided on pages 39 through 120 of this report). These are divided into four primary sections corresponding to the product emphasis groups in the industry, which are defined as:

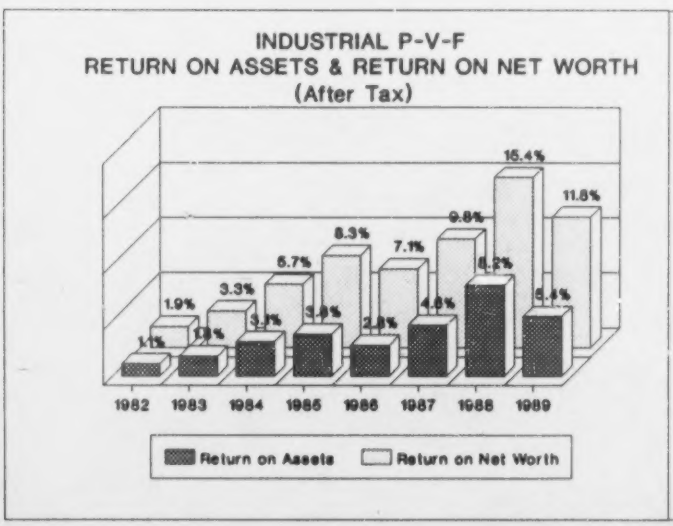
- Plumbing Supplies and Equipment Firms
- Industrial PVF Firms
- Plumbing Supplies **and** Industrial PVF Firms
- HVAC and Other Emphasis Firms

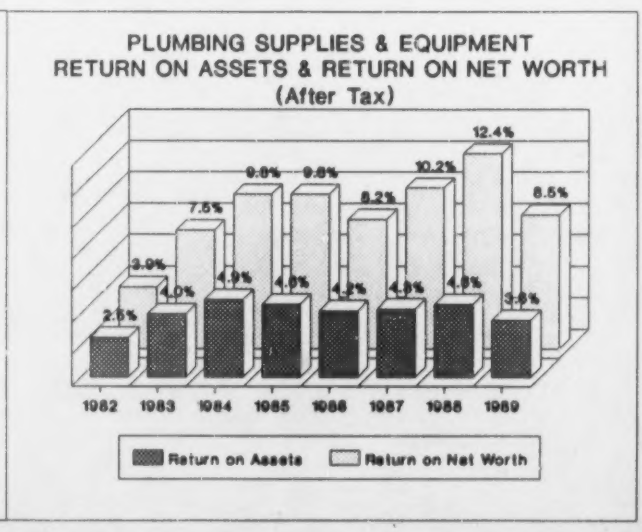
In using this study to evaluate your own company's performance, you should refer to the section which most closely corresponds with your firm's operation. This detailed information should be kept handy and referenced from time to time as a tool for better controlling and managing your business. Even more importantly, the 1989 performance results can be compared to prior years' results in order to identify any trends that have taken place. This is useful for understanding not only where the industry has been, but also for anticipating the future direction of the PHCP/PVF wholesale business. Following are highlights of the 1989 results as well as insights regarding patterns of change during the 1981-1989 period.

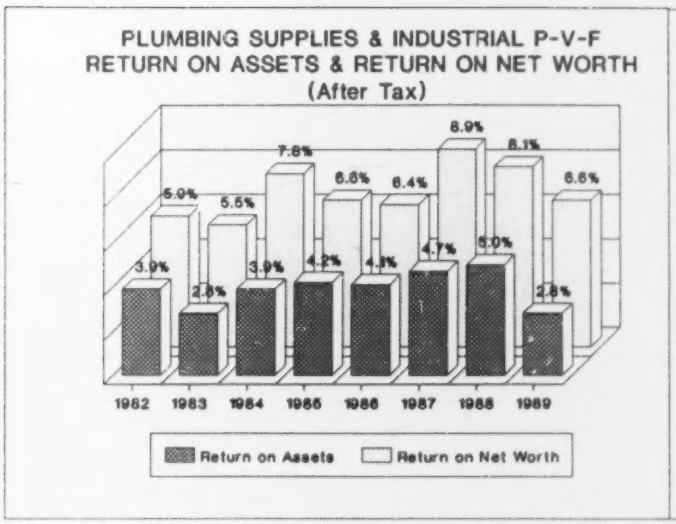
The series of tables and graphs on the next several pages have been abstracted from the comprehensive set of statistics. These data represent good overall gauges of PHCP wholesaler performance in key areas of profitability, financial management, accounts receivable, expenses and profits, and sales performance.

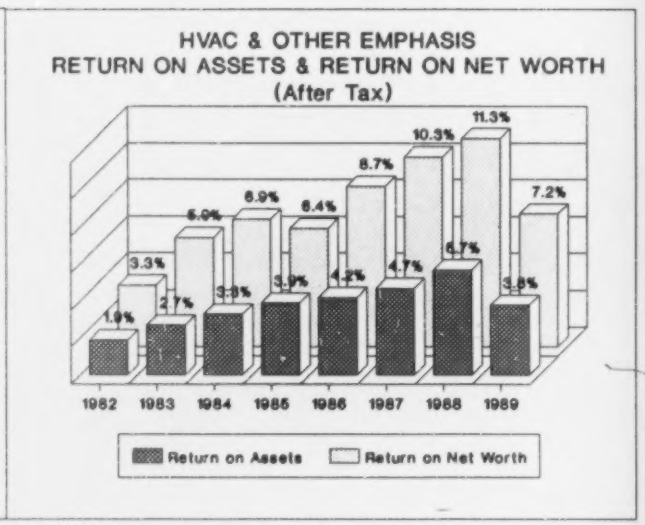
Profitability

Overall profitability declined in 1989. Return on net worth (after tax) for the typical firm was 8.5%, a decrease from 12.5% in 1988. Return on assets






PLUMBING SUPPLIES & INDUSTRIAL P-V-F
RETURN ON ASSETS & RETURN ON NET WORTH
(After Tax)
1982 1983 1984 1985 1986 1987 1988 1989
Return on Assets
Return on Net Worth


HVAC & OTHER EMPHASIS
RETURN ON ASSETS & RETURN ON NET WORTH
(After Tax)
1982 1983 1984 1985 1986 1987 1988 1989
Return on Assets
Return on Net Worth

(after tax) also decreased in 1989, the typical firm earning 3.7% on assets compared with 5.6% in 1988. **Industrial PVF** firms reported the highest returns on net worth and assets of 11.8% and 5.4 % respectively, while **Plumbing Supplies & Industrial PVF** firms reported the lowest returns, 6.6% and 2.8%.

This decrease in profitability is due partially to lower sales growth than in previous years. Firms received a smaller amount of additional sales in 1989 thus reducing the dollar amount of earnings. In addition to lower sales growth, a combination of lower gross margins and higher operating expenses contributed to lower after-tax profit margins. As illustrated in the graphs on page 28, profit margins decreased in 1989 for all types of ASA wholesalers.

Although the profitability measures dropped in 1989, the profitability of ASA member wholesalers generally have been increasing since 1982, as the graphs on this and the previous page illustrate.

Productivity

Each year's *Operating Performance Report* confirms that a key determinant of profitability is the effectiveness and efficiency with which the company operates. Invariably, companies that are the most productive are also the most profitable, regardless of company size, type of product, geographic region, etc.

Through the last nine years, the particular areas of productivity management that tend to be the most critical are inventory and personnel. Inventory is by far the largest asset investment a company makes, representing 40 to 50 percent of assets while payroll costs alone represent nearly 50% of gross profit for the typical ASA wholesaler. Mismanagement in these two areas alone could cause low profitability.

In order to better illustrate the importance of productivity as it relates to profitability, we have constructed the following example.

In the table below you will find the four types of ASA wholesalers and their respective return on assets ranked from 1 to 4 (highest to lowest). For each product category, we also ranked the respective inventory measures (warehouse inventory turnover and gross margin) and personnel measures (payroll and fringes to sales). In addition, we included the profit margin, which indirectly reflects inventory management and personnel costs, and sales growth. We then take a simple average of the rankings for each type of wholesaler and compare the average ranking with the return on asset rank.

As expected, the average rank positively correlates with the profitability of each type of wholesaler. As illustrated, **Industrial PVF** firms had the highest average ranking and accordingly reported the highest return on assets. **Plumbing Supplies & Industrial PVF** firms had the lowest average ranking and the lowest return on assets. The other two types of firms both had nearly equal rankings in between the highest and lowest and both reported a return on assets that also were nearly equal and in between the highest and lowest returns on assets. Admittedly this example is fairly simplistic, although it clearly illustrates the importance that productivity plays in determining profitability.

As the table on page 22 shows, 1989 marks the first year that **Plumbing Supplies & Equipment** firms have exceeded a 25% gross margin. Since 1981, gross margin has averaged 24.5% for this group of wholesalers, but 1989 brought a gross margin of 25.8% (Unfortunately, this gain was wiped out by higher operating expenses as a percent of sales.) Inventory turnover and gross margin return on inventory also increased in 1989.

	Rank	Industrial PVF	Rank	HVAC & Other	Rank	Plumbing Supplies & Equipment	Rank	Plumbing Supplies & Industrial PVF
Return on Assets	1	5.4%	2	3.8%	3	3.6%	4	2.8%
Warehouse Inventory Turn	1	4.4x	4	3.4x	2	4.0x	3	3.9
Gross Margin	1	26.7%	3	24.5%	2	25.8%	4	24.3%
Payroll & Fringes to Sales	2.5	14.5%	1	14.1%	2.5	14.5%	4	15.2%
Sales Growth	1	12.1%	2	5.1%	4	1.8%	3	4.1%
Profit Margin (after tax)	1	2.0%	2.5	1.3%	2.5	1.3%	4	1.2%
Average Rank	1.3		2.5		2.6		3.6	
Return on Assets	1	5.4%	2	3.8%	3	3.6%	4	2.8%

As shown in the tables on pages 23 through 25, gross margin decreased for the other three groups of wholesalers while inventory turnover increased for **Industrial PVF** firms and fell for **HVAC** and **Plumbing Supplies & Industrial PVF** firms. Personnel productivity generally decreased as the ratio "payroll and fringes as a percent of sales" continued its upward climb for all wholesalers (**Industrial PVF** firms were the exception--personnel productivity increased for this group).

Accounts Receivable Management

Another important component of PHCP wholesaler success is the extent to which the company's customers make timely payment on invoices. If invoices or receivables are not collected promptly, several unfavorable circumstances can occur.

1. Cash flow becomes tight due to excess dollars tied up in receivables, and paying bills on time may become difficult.

2. Profitability leaks occur since receivables have corresponding costs, such as administrative costs, financing costs, and collection costs (i.e., lawyers, credit bureaus, collection agencies, etc.). In addition, if receivables problems persist, bad debt expenses may become more and more significant.

3. Money tied up in excess receivables can prohibit your firm from taking advantage of growth opportunities and could jeopardize your ability to compete effectively, especially in times when profits and sales growth are slim.

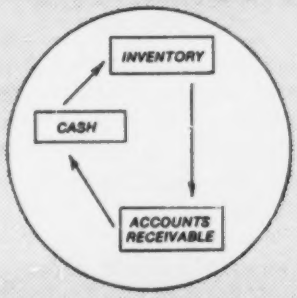
CASH MANAGEMENT

Introduction

While profits should certainly be a primary concern of management, high profits are no guarantee that you will have available cash to pay bills when they are due. The world of business is filled with examples of profitable firms that struggle and/or go out of business because of cash flow problems. Thus the saying. . profits are important but "*cash is king.*" While this may be somewhat overstated, the fact is cash flow is an important component of business success.

The Current Asset Cycle

A good way to visualize the basics of cash management is through the diagram shown below, which is often referred to as the *current asset cycle* or the *working capital wheel.*



Essentially this shows that cash is used to buy inventory, the inventory is subsequently sold and converted to an accounts receivable which in turn is eventually collected and turned into cash. Then the cycle repeats itself over and over. Every time the cycle is completed, cash is produced.

Sales and Cash Flow

In order for the cycle to occur, however, the company must generate sales. In other words, the working capital wheel is dependent upon a sales wheel (as shown on the next page). The faster one wheel turns, the faster the other turns.

You can see from the diagram that if inventory is not moving efficiently (thus resulting in a slowing of the working capital wheel), this will result in a slow down of the sales wheel. Also, if inventory is not moving, the cycle will not generate cash. Likewise if receivables are not collected, the *working capital wheel* will slow down and cash will not be generated.

Implied in the diagram is the fact that the control and management of cash flow is dependent on the effective planning of each of the primary components of cash flow, including:

- Sales
- Cash
- Inventory
- Accounts Receivable

Of primary importance is: (1) the amount of dollars in the current asset cycle at any time and, (2) the velocity with which the dollars are circulating through the cycle. The amount of dollars and their velocity determine the extent to which cash is being generated. The mark-up percentage on inventory purchased and the number of times the dollars can be moved through the cycle each year determine the total amount of gross margin dollars available to cover expenses and contribute to bottom line profits.

Working Capital and Cash Management Ratios

The ratio analysis of working capital is useful for management as a means of checking upon the efficiency with which working capital is being used by the company. In particular, working capital specifically refers to the "excess of current assets over current liabilities." (When current debt exceeds current assets, a working capital deficit occurs; i.e., the company is in a cash bind.)

continued on next page

This report provides several indicators of receivables management that can be used as a gauge for monitoring your own firm's credit and collections situation. One such measure is the "average collection period" or "days outstanding in receivables" as it is often called. This measure has shown the following pattern for the four types of wholesalers over the last nine years.

Plumbing Supplies & Equipment firms have typically reported an average collection period of about 49 days. In 1989 the typical firm collected receivables on an average of every 50 days.

Industrial PVF firms, on average, collect receivables every 45 days. In 1989 the typical firm reported an average collection period of 42 days, the lowest since 1982.

Plumbing Supplies & Industrial PVF firms have typically reported an average collection period of 50 days, with the collection period increasing to 54 days in 1989.

HVAC & Other Emphasis firms on average collect receivables every 46 days. In 1989 the typical firm reported an average collection period of 44 days, the lowest since 1981.

In addition to the "average collection period," another useful way to manage receivables is through the accounts receivable aging table. These data show the percent of receivables that are:

- current (0-30 days since the original date of invoice)
- 31-60 days from date of invoice
- 61-90 days from date of invoice
- Over 90 days from date of invoice

Working capital refers to the margin of protection a company provides for the payment of current debts in the event of possible reductions in current assets.

Probably the best overall measure of working capital management is net sales to working capital (also sometimes called the turnover of working capital). This is derived by dividing net sales by working capital and indicates the demands made upon working capital in supporting the sales volume of the business.

The higher the level of sales relative to available working capital, the greater the strain a company encounters in satisfying trade and bank creditors while meeting payroll, taxes, and other regular obligations. In other words, a given sales volume level typically requires a certain working capital level. In cases where this ratio appears disproportionately high, it serves to clearly indicate a working capital deficiency.

A further indication of cash management is provided by a ratio that reflects the *actual* cash return earned by the business on the sales generated. This is sometimes called the cash flow ratio and is defined as:

Net Profits Before Taxes Plus Depreciation divided by Net Sales

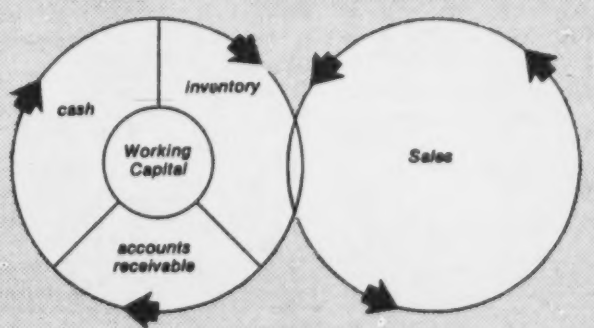
This ratio is expressed as a percent of sales. A related ratio is cash return on assets defined as:

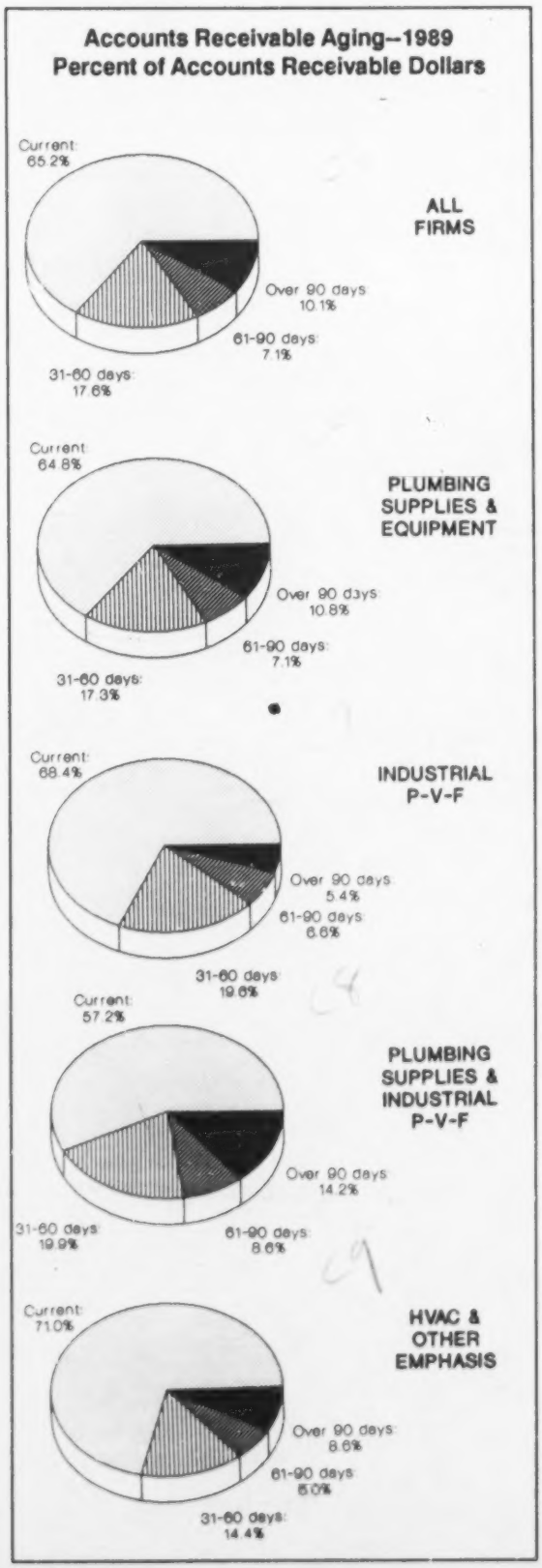
Net Profits Before Taxes Plus Depreciation divided by Total Assets

This is also expressed as a percent.

These measures give a better indication of the *actual* return on sales and assets since depreciation, which is a "paper" expense, is added back to profits.

In summary, profits are nice but cold hard cash is better. By being aware of the cash flow process, you are better equipped to effectively run your business.

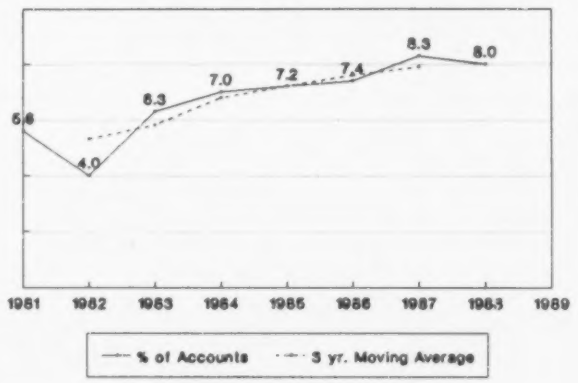




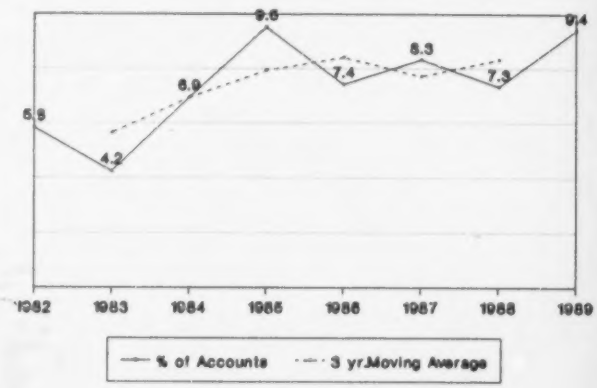
Accounts receivable aging is expressed both as a percent of receivable *accounts* and as a percent of receivable *dollars*. As shown in the graph to the left, the typical PHCP wholesaler held 65.2% of receivable *dollars* that were current; 17.6% that were 31-60 days from the original invoice date; 7.1% that were 61-90 days from the invoice date; and 10.1% that were outstanding over 90 days since being invoiced.

In reviewing the percent of receivable *accounts* outstanding, an interesting trend has developed--the percent of accounts outstanding over 90 days has been increasing over the last nine years for all types of wholesalers. The graphs on the next page illustrate the percentage of accounts outstanding over 90 days over the last nine years, and a 3-year moving average trend line has been fitted with the data. With the exception of **HVAC and Other Emphasis** firms, it is evident that the percent of invoices over 90 days has been on the rise, which indicates a higher likelihood of debt expenses.

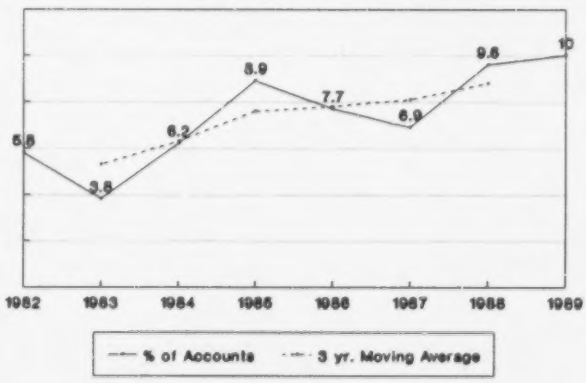
PLUMBING SUPPLIES & EQUIPMENT
% OF ACCOUNTS OVER 90 DAYS FROM INVOICE



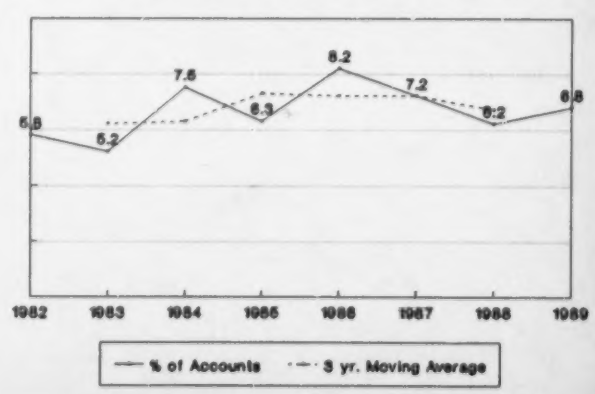
INDUSTRIAL P-V-F
% OF ACCOUNTS OVER 90 DAYS FROM INVOICE



PLUMBING SUPPLIES & INDUSTRIAL P-V-F
% OF ACCOUNTS OVER 90 DAYS FROM INVOICE



HVAC & OTHER EMPHASIS
% OF ACCOUNTS OVER 90 DAYS FROM INVOICE



ALL REPORTING P-H-C-P AND P-V-F WHOLESALER/DISTRIBUTORS

NINE-YEAR SUMMARY PERFORMANCE COMPARISON 1981-1989

	1989	1988	1987	1986	1985	1984	1983	1982	1981
Profitability									
After Tax Return on Net Worth	8.5%	12.5%	9.8%	8.1%	8.8%	8.2%	6.3%	3.8%	NA
After Tax Return on Assets	3.7%	5.6%	4.5%	4.0%	4.0%	4.1%	3.1%	2.3%	NA
Financial Management									
Total Debt to Net Worth	95.3%	110.6%	104.6%	90.8%	88.0%	82.7%	78.4%	68.3%	74.1%
Current Assets minus Inventory to Current Debt	1.0x	1.0x	1.0x	1.0x	1.1x	1.1x	1.1x	1.3x	1.1x
Personnel Productivity									
Net Sales per Employee (nominal $)	$220,830	$220,921	$200,712	$193,225	$187,024	$186,131	$167,380	$152,258	$162,040
Net Sales per Employee (adjusted for inflation)	$174,846	$182,128	$170,964	$169,794	$168,642	$172,824	$161,097	$152,258	$172,383
Payroll and Fringe Benefits to Net Sales	14.6%	13.9%	13.0%	13.3%	13.5%	13.7%	14.1%	14.5%	14.1%
Inventory Management									
Gross Margin on Sales	25.5%	25.3%	25.1%	24.9%	24.9%	24.5%	24.8%	25.0%	24.7%
Cost of Warehouse Goods Sold to Average Inventory	3.9x	3.7x	3.6x	3.6x	3.4x	3.6x	3.3x	3.1x	3.4x
Total Cost of Goods Sold to Average Inventory	4.2x	4.5x	4.2x	4.2x	4.0x	4.1x	3.8x	3.6x	3.8x
Warehouse Gross Margin Return on Inventory	133%	131%	128%	122%	120%	123%	114%	109%	119%
Accounts Receivable									
Average Collection Period (days)	47	49	48	47	47	48	50	47	44
Percent of Accounts Over 90 Days Outstanding	8.3%	7.9%	7.5%	7.5%	7.4%	6.6%	4.2%	5.7%	NA
Expense Management									
Total Operating Expenses as a Percent of Sales	23.3%	22.3%	22.7%	22.9%	21.9%	21.5%	22.4%	23.2%	21.7%
Sales Performance									
Percent Sales Change from Prior Year	3.8%	11.3%	11.0%	8.2%	8.3%	15.2%	10.5%	-4.3%	0.9%

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PLUMBING SUPPLIES & EQUIPMENT FIRMS

NINE-YEAR SUMMARY PERFORMANCE COMPARISON
1981-1989

	1989	1988	1987	1986	1985	1984	1983	1982	1981
Profitability									
After Tax Return on Net Worth	8.5%	12.4%	10.2%	8.2%	9.8%	9.8%	7.5%	3.9%	NA
After Tax Return on Assets	3.6%	4.6%	4.3%	4.2%	4.6%	4.9%	4.0%	2.5%	NA
Financial Management									
Total Debt to Net Worth	97.8%	136.1%	109.8%	106.9%	92.8%	90.7%	85.8%	68.9%	78.1%
Current Assets minus Inventory to Current Debt	0.98x	0.94x	1.0x	1.1x	1.0x	1.0x	1.0x	1.3x	1.1x
Personnel Productivity									
Net Sales per Employee (nominal $)	$212,273	$222,209	$203,256	$196,208	$195,342	$189,182	$171,166	$158,548	$162,470
Net Sales per Employee (adjusted for inflation)	$168,070	$183,190	$173,131	$172,415	$176,142	$175,656	$164,741	$158,548	$172,840
Payroll and Fringe Benefits to Net Sales	14.5%	13.7%	12.6%	13.1%	13.2%	13.5%	13.7%	14.1%	13.8%
Inventory Management									
Gross Margin on Sales	25.8%	24.7%	24.7%	24.1%	24.3%	24.3%	24.3%	25.0%	24.4%
Cost of Warehouse Goods Sold to Average Inventory	4.0x	3.7x	3.6x	3.9x	3.7x	3.8x	3.7x	3.3x	3.5x
Total Cost of Goods Sold to Average Inventory	4.1x	4.4x	4.1x	4.1x	4.0x	4.2x	4.1x	3.7	4.2x
Warehouse Gross Margin Return on Inventory	133%	126%	129%	124%	118%	126%	124%	113%	127%
Accounts Receivable									
Average Collection Period (days)	50	52	51	48	48	49	50	50	44
Percent of Accounts Over 90 Days Outstanding	8.0%	8.3%	7.4%	7.2%	7.0%	6.3%	4.0%	5.6%	NA
Expense Management									
Total Operating Expenses as a Percent of Sales	23.9%	22.1%	22.6%	22.3%	21.4%	21.3%	21.8%	22.7%	21.6%
Sales Performance									
Percent Sales Change from Prior Year	1.8%	8.5%	9.3%	9.4%	9.8%	14.7%	18.1%	-3.1%	0.5%

INDUSTRIAL P-V-F FIRMS

NINE-YEAR SUMMARY PERFORMANCE COMPARISON
1981-1989

	1989	1988	1987	1986	1985	1984	1983	1982	1981
Profitability									
After Tax Return on Net Worth	11.8%	15.4%	9.8%	7.1%	8.3%	5.7%	3.3%	1.9%	NA
After Tax Return on Assets	5.4%	8.2%	4.6%	2.8%	3.8%	3.1%	1.8%	1.1%	NA
Financial Management									
Total Debt to Net Worth	106.6%	110.4%	104.6%	80.7%	84.1%	74.4%	83.9%	83.3%	64.2%
Current Assets minus Inventory to Current Debt	1.1x	1.0x	1.0x	1.2x	1.0x	1.1x	1.1x	1.2x	1.0x
Personnel Productivity									
Net Sales per Employee (nominal $)	$243,792	$251,503	$210,031	$205,236	$218,040	$197,975	$196,923	$201,377	$198,150
Net Sales per Employee (adjusted for inflation)	$193,026	$207,340	$178,902	$180,348	$196,609	$183,821	$189,531	$201,377	$210,798
Payroll and Fringe Benefits to Net Sales	14.5%	15.1%	14.7%	14.6%	15.9%	14.4%	14.1%	13.9%	12.9%
Inventory Management									
Gross Margin on Sales	26.7%	28.1%	26.8%	27.4%	27.1%	25.7%	24.4%	23.4%	25.1%
Cost of Warehouse Goods Sold to Average Inventory	4.4x	4.2x	3.5x	3.3x	3.3x	3.2x	3.1x	2.7x	3.0x
Total Cost of Goods Sold to Average Inventory	5.0x	4.9x	4.6x	4.2x	4.1x	4.2x	3.6x	3.7x	3.4x
Warehouse Gross Margin Return on Inventory	146%	159%	143%	127%	127%	121%	109%	95%	111%
Accounts Receivable									
Average Collection Period (days)	42	46	48	43	43	48	51	40	40
Percent of Accounts Over 90 Days Outstanding	9.4%	7.3%	8.3%	7.4%	9.5%	6.9%	4.2%	5.8%	NA
Expense Management									
Total Operating Expenses as a Percent of Sales	23.4%	23.8%	24.6%	25.3%	23.1%	22.2%	23.6%	22.0%	20.6%
Sales Performance									
Percent Sales Change from Prior Year	12.1%	18.8%	13.5%	0.1%	9.5%	20.1%	-6.8%	-11.7%	3.6%

PLUMBING SUPPLIES & EQUIPMENT & INDUSTRIAL P-V-F FIRMS

NINE-YEAR SUMMARY PERFORMANCE COMPARISON
1981-1989

	1989	1988	1987	1986	1985	1984	1983	1982	1981
Profitability									
After Tax Return on Net Worth	6.6%	8.1%	8.9%	6.4%	6.6%	7.8%	5.5%	5.9%	NA
After Tax Return on Assets	2.8%	5.0%	4.7%	4.1%	4.2%	3.9%	2.8%	3.9%	NA
Financial Management									
Total Debt to Net Worth	108.0%	81.4%	75.7%	73.4%	79.9%	61.7%	56.7%	42.5%	52.3%
Current Assets minus Inventory to Current Debt	1.1x	1.0x	1.1x	1.1x	1.2x	1.3x	1.4x	1.5x	1.4x
Personnel Productivity									
Net Sales per Employee (nominal $)	$223,668	$202,519	$202,179	$189,599	$191,710	$191,422	$167,513	$152,807	$157,900
Net Sales per Employee (adjusted for inflation)	$177,093	$166,957	$172,214	$166,607	$172,867	$177,736	$161,225	$152,807	$167,979
Payroll and Fringe Benefits to Net Sales	15.2%	15.2%	14.4%	14.9%	14.2%	13.7%	14.3%	15.3%	14.2%
Inventory Management									
Gross Margin on Sales	24.3%	25.6%	24.8%	25.9%	24.8%	23.7%	24.1%	25.2%	24.5%
Cost of Warehouse Goods Sold to Average Inventory	3.9x	4.1x	3.9x	3.7x	3.7x	3.4x	3.4x	2.8x	3.1x
Total Cost of Goods Sold to Average Inventory	4.7x	4.6x	4.2x	4.4x	4.5x	4.1x	4.0x	3.6x	3.9x
Warehouse Gross Margin Return on Inventory	140%	137%	125%	130%	127%	111%	108%	106%	114%
Accounts Receivable									
Average Collection Period (days)	54	50	48	54	51	48	49	46	47
Percent of Accounts Over 90 Days Outstanding	10.0%	9.6%	6.9%	7.7%	8.9%	6.2%	3.8%	5.8%	NA
Expense Management									
Total Operating Expenses as a Percent of Sales	22.2%	22.8%	22.3%	23.6%	21.7%	21.3%	22.7%	24.7%	21.2%
Sales Performance									
Percent Sales Change from Prior Year	4.1%	10.2%	13.8%	8.3%	7.3%	14.2%	12.7%	-3.7%	2.8%

HVAC & OTHER EMPHASIS FIRMS

NINE-YEAR SUMMARY PERFORMANCE COMPARISON
1981-1989

	1989	1988	1987	1986	1985	1984	1983	1982	1981
Profitability									
After Tax Return on Net Worth	7.2%	11.3%	10.3%	8.7%	6.4%	6.9%	5.9%	3.3%	NA
After Tax Return on Assets	3.8%	5.7%	4.7%	4.2%	3.9%	3.3%	2.7%	1.9%	NA
Financial Management									
Total Debt to Net Worth	74.7%	92.1%	106.5%	92.5%	78.9%	83.8%	87.1%	92.7%	102.1%
Current Assets minus Inventory to Current Debt	1.0x	0.9x	0.9x	0.9x	1.0x	1.0x	1.0x	1.1x	1.0x
Personnel Productivity									
Net Sales per Employee (nominal $)	$218,502	$217,748	$184,982	$177,161	$166,551	$164,970	$144,910	$133,715	$133,470
Net Sales per Employee (adjusted for inflation)	$173,002	$179,512	$157,566	$155,678	$150,181	$153,175	$139,471	$133,715	$141,989
Payroll and Fringe Benefits to Net Sales	14.1%	13.0%	12.5%	12.6%	12.7%	13.9%	14.3%	15.1%	15.6%
Inventory Management									
Gross Margin on Sales	24.5%	24.7%	25.1%	24.5%	25.2%	24.9%	26.2%	26.1%	26.1%
Cost of Warehouse Goods Sold to Average Inventory	3.4x	3.6x	3.4x	3.3x	3.1x	3.3x	2.8x	3.3x	3.1x
Total Cost of Goods Sold to Average Inventory	4.0x	4.3x	3.8x	3.7x	3.4x	3.9x	3.4x	3.4x	3.5x
Warehouse Gross Margin Return on Inventory	118%	120%	110%	113%	109%	118%	102%	111%	118%
Accounts Receivable									
Average Collection Period (days)	44	44	45	46	46	46	49	50	43
Percent of Accounts Over 90 Days Outstanding	6.8%	6.2%	7.2%	8.2%	6.3%	7.5%	5.2%	5.8%	NA
Expense Management									
Total Operating Expenses as a Percent of Sales	22.5%	21.5%	22.0%	22.3%	22.9%	22.3%	23.5%	25.1%	23.5%
Sales Performance									
Percent Sales Change from Prior Year	5.1%	13.0%	11.1%	10.9%	7.9%	14.6%	7.8%	-3.7%	-0.8%

Financial Management

Virtually all PHCP wholesalers need to borrow money to finance their business at one time or another, be it short-term lines of credit to fund inventory or long-term debt for capital expansion. The more financial strength you are able to show your banker, the more apt he or she is to lend you the money.

As a tool for evaluating and managing your firm's financial strength, a number of financial management measures are provided in the *Operating Performance Report*. Given that your banker or other lender(s) are probably not extremely familiar with the specifics of PHCP wholesaling, the information in this study can be presented along with your figures when applying for loans. This will allow your lender to better understand your operations.

The most important indicators of financial strength are **leverage** and **liquidity**. Leverage shows the degree to which a company relies on debt while liquidity refers to a company's ability to meet its short-term obligations. In the summary tables on pages 21 through 25, leverage is measured by the ratio "total debt to net worth" while liquidity is measured by "current assets minus inventory to current debt." Total debt to net worth simply compares the amount of debt to the amount of net worth. A ratio that is above 100% means that debt exceeds net worth while a ratio below 100% indicates that debt is less than net worth.

Since 1981, the typical PHCP wholesaler has increasingly relied on debt financing. As shown on the tables on pages 21 through 25,

DIAGNOSING YOUR FIRM'S FINANCIAL HEALTH THROUGH THE "Z SCORE" RATING

THE Z SCORE DEFINED

One of the most challenging aspects of financial ratio analysis is that different ratios seem to give different answers to the simple question, "How did my firm do." While "return on net worth" is a good overall barometer of company profitability performance, another measure that has received widespread acclaim is the Z Score.

The Z Score was originally created by Edward I. Altman in the mid-1960's to measure the likelihood of bankruptcy. Since then, it has withstood the test of time and is perhaps the most widely used of the many bankruptcy predictors that exist. **While the Z Score is by no means infallible, it is useful to provide a warning of possible trouble.** But by no means should you use the Z Score as your only means of financial analysis.

To calculate the Z Score, you simply take the figures for four ratios which Altman labeled as X1, X2, X3, and X4, and multiply their values by coefficients Altman derived from the experiences of many real companies he studied; then sum the results. This procedure is highlighted below.

The Z Score As An Analytical Tool

In addition to predicting bankruptcy, the Z Score is also useful as a tool for analyzing your business. For example, if your Z Score begins to decline over time, this should be an indication that something is wrong. Each individual component of the Z Score can then be analyzed separately.

The Z Score Bankruptcy Classification Model

Ratio Name	Ratio Calculation	Coefficient
X1=	Working Capital* / Total Assets	6.56
X2=	Retained Earnings** / Total Assets	3.26
X3=	Earnings Before Interest and Taxes / Total Assets	6.72
X4=	Net Worth / Total Liabilities	1.05

The Z Score is the sum of the above totals, where each total is derived by multiplying the ratio times the coefficient.

If the Z Score is:

- Greater than 2.6, this company is probably safe.
- Less than 1.1, the company is near or in bankruptcy.
- Between 1.1 and 2.6, the company is in possible trouble.

*Defined as current assets minus current liabilities.
**If retained earnings is not available, substitute *net worth*.

Source: *Corporate Financial Distress* by Edward I Altman; John Wiley & Sons, 1983.

What If Your Z Score is Low?

If your Z Score is trending downward or is lower than preferred, you should examine your business carefully to determine why. Obviously one way to do this is to compare your financial ratios with those in this study. Look for ratios for which your firm does not compare favorably to the industry

leverage has risen steadily throughout the eighties as companies relied more and more on debt financing. In 1989 though, leverage decreased for all types of ASA wholesalers except **Plumbing Supplies & Industrial PVF** firms. This group reported a median debt to net worth ratio of 108%, the highest of the four types of wholesalers. **Industrial PVF** firms were the second highest leveraged while **HVAC & Other Emphasis** firms were the least leveraged. **Plumbing Supplies & Equipment** firms saw the largest change in leverage, falling from 136% in 1988 to 98% in 1989.

The liquidity ratio "current assets minus inventory to current debt," also known as the "quick ratio," measures how many times a company could pay off its current debt using current assets minus inventory (inventory is subtracted since it is not easily liquidated). This ratio has been fairly constant at 1.0x for the typical firm since 1981.

Expenses and Profits

While financial management, receivables, and productivity are all important to a company's success, the area of operations that typically receives the most managerial attention on a regular basis is expenses and bottom line profits. Most owners and managers receive and scrutinize their income statement (P&L) figures on a routine basis and as a result, watching and controlling expenses is usually foremost in their minds.

norms. If you find that you are out of line in one or more areas, try to determine why and what must be done to correct the situation.

X1= $\frac{\text{Working Capital}}{\text{Total Assets}}$

This is an indication of the firm's liquidity. Generally, if financial problems arise, working capital (i.e., current assets minus current liabilities) will fall more quickly than total assets, causing this ratio to decline.

X2= $\frac{\text{Retained Earnings}}{\text{Total Assets}}$

This reflects the cumulative profitability of your company. Since an older firm will have had more time to build up accumulated profits this ratio is obviously somewhat biased. However, when a firm starts to suffer profitability losses, retained earnings will decline and could even become negative.

X3= $\frac{\text{Earnings Before Interest and Taxes}}{\text{Total Assets}}$

This is a return on assets profitability measure to indicate what percentage return (before interest payments) you are earning on the assets employed in the business. The ratio is also a good indication of how effectively a firm is using its borrowed funds. In particular, if this ratio is greater than the company's average interest rate on loans, then the firm is making more money on its debts than is being paid in interest. In other words, the firm is profiting, on average, from every borrowed dollar invested in assets.

X4= $\frac{\text{Net Worth}}{\text{Total Liabilities}}$

This is a financial leverage type ratio, but in reverse. In other words, for firms that have much more equity (or net worth) than debt (or liabilities), this ratio will be high. But if a firm has much more debt than net worth, this ratio will be low.

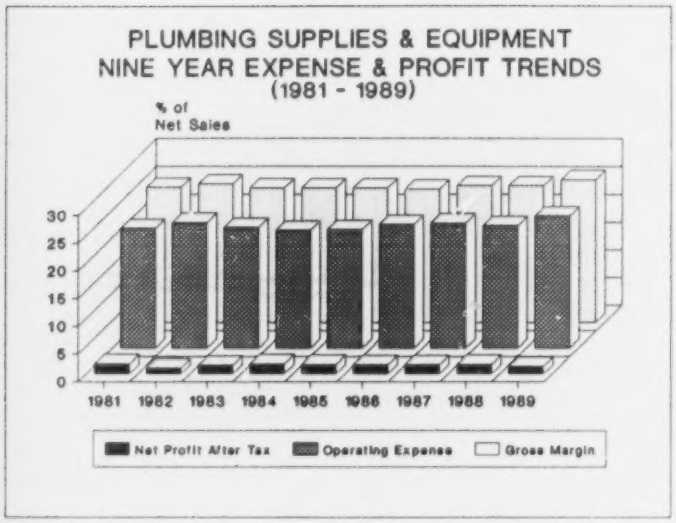
While the Z Score takes a somewhat stern view of your financial statements in predicting insolvency, it is used by many bankers to identify financial vulnerability for screening out undesirable applicants for business loans. In general, to the Z Score:

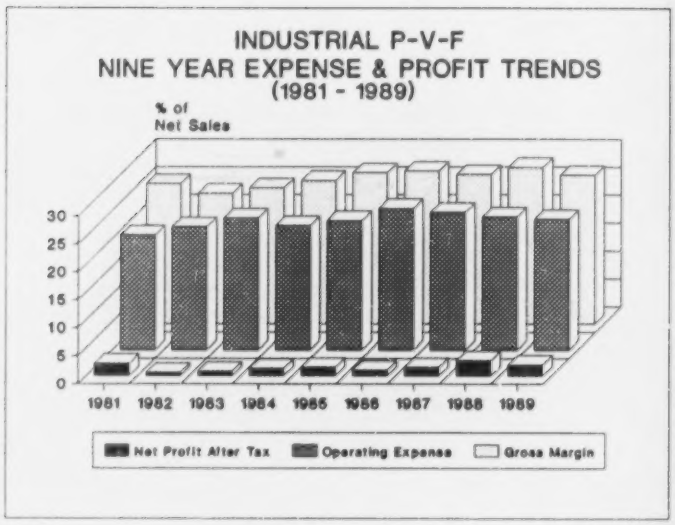
- Profits are good
- Assets are bad
- Liabilities are worse
- Current liabilities are worst of all

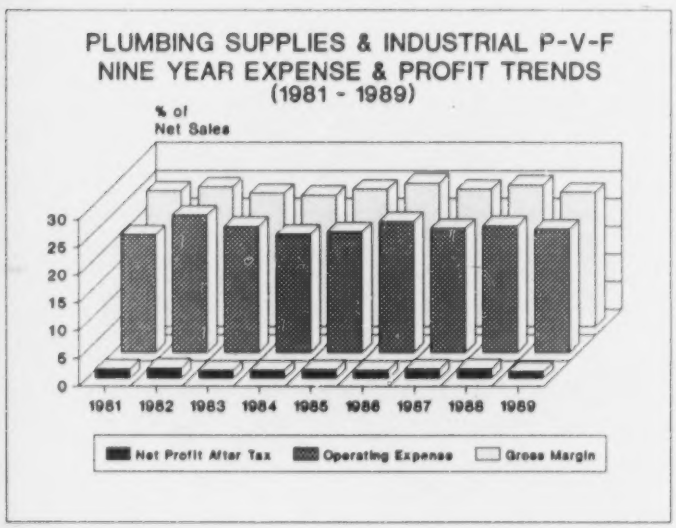
Therefore, if your Z Score is low, you can improve it by liquidating marginal assets and using the cash generated to pay off current liabilities. This would improve the X1 ratio (by increasing working capital and decreasing assets). It will also raise both the X2 and X3 ratios by lowering assets, and will improve the X4 ratio by decreasing liabilities. As a result, interest payments will also be reduced and overhead costs are likely to be lower due to the disposed of assets. The ultimate result, hopefully, is that profitability and financial strength will both improve.

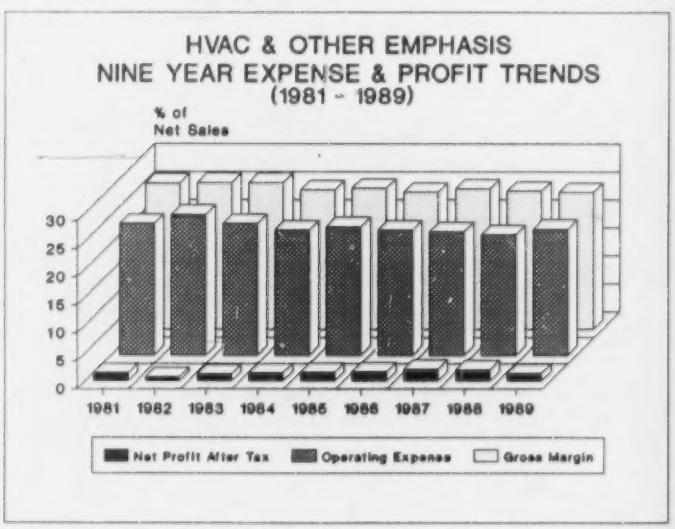
Conclusion

The Z Score is one of many failure-prediction models used widely by bankers and other creditors to confirm a company's creditworthiness. While it is certainly not infallible, its real value is to provide an indication of problems before they become fatal to a firm. In this regard, the Z Score for your own firm is perhaps most helpful when compared to past company performance as well as to the performance of your industry peers.









	Plumbing Supplies & Equipment		Industrial PVF		Plumbing Supplies & Industrial PVF		HVAC & Other Emphasis	
	1989	1988	1989	1988	1989	1988	1989	1988
Sales	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Gross Margin	25.8	24.7	26.7	28.1	24.3	25.6	24.5	24.7
Operating Expenses	23.9	22.1	23.4	23.8	22.2	22.8	22.5	21.5
Profit After Tax	1.3	1.7	2.0	2.8	1.2	1.7	1.3	2.0

The graphs on the previous page highlight the 1981-1989 PHCP wholesaler expense and margin trends relative to sales. As shown on the table below the graphs, after tax profit margins decreased in 1989 for all four types of PHCP wholesalers. This was due to a combination of slower sales growth, lower gross margins, and higher operating expenses as a percent of sales.

Industrial PVF firms reported the highest after tax profit margin of 2.0% in 1989, considerably lower than that of 1988. **Plumbing Supplies & Industrial PVF** firms reported the lowest after tax profit margin of 1.2%, down from 1.7% in 1988. These two wholesalers experienced a lower gross margin from that of 1988, which contributed to the profit margin decrease. **HVAC & Other Emphasis** firms saw a decrease in gross margin *and* an increase in operating expenses, resulting in a profit margin of 1.3% compared with 2.0% in 1988. **Plumbing Supplies & Equipment** firms reported a higher gross margin than that of 1988, but an increase in expenses wiped out any gain in gross margin, resulting in a lower profit margin.

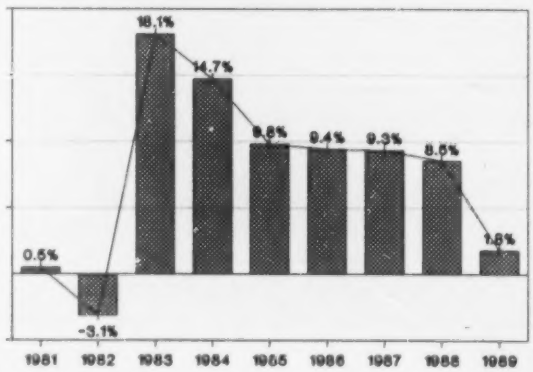
As mentioned earlier, lower sales growth also contributed to lower profit margins. Since many expenses are fixed and do not fluctuate with sales (such as salaries), a smaller amount of sales dollars will result in a lower profit margin unless the fixed expenses are reduced accordingly. Therefore, the lower sales growth in 1989 was one factor in the lower profit margins.

Sales Performance

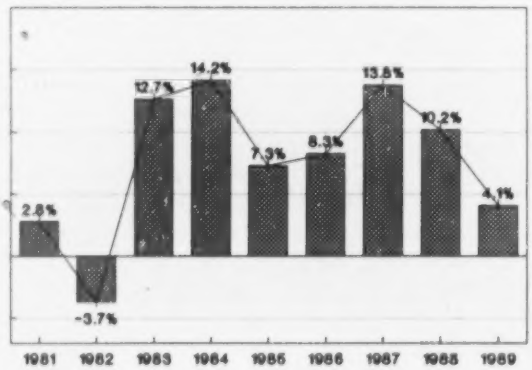
The graphs on the next page highlight the pattern of sales growth for each group of wholesalers over the past nine years. **Industrial PVF** firms achieved the highest growth in 1989 of 12.1%, a decrease from 1988. The other three groups reported the lowest sales growth since the 1982 recession, with **Plumbing Supplies & Equipment** firms reporting the lowest growth of 1.8%.

For your reference, additional insights into the make-up of PHCP wholesale sales are shown in the **sales mix** and **product mix** graphs on page 31. These indicate the mix of direct or drop shipment sales and warehouse sales, as well as the mix of product sales for each type of wholesaler.

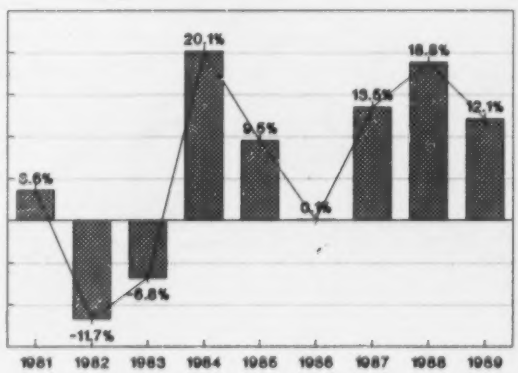
PLUMBING SUPPLIES & EQUIPMENT SALES GROWTH



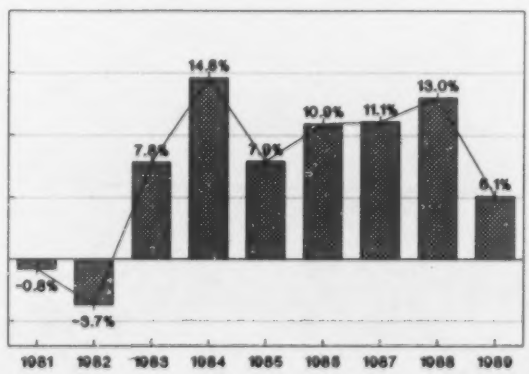
PLUMBING SUPPLIES & INDUSTRIAL P-V-F SALES GROWTH



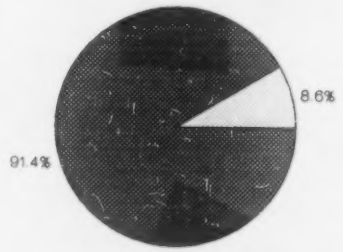
INDUSTRIAL P-V-F SALES GROWTH



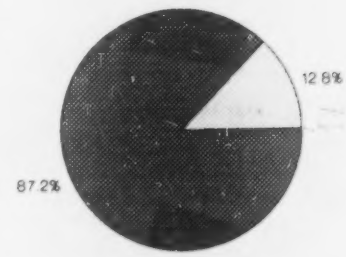
HVAC & OTHER EMPHASIS SALES GROWTH



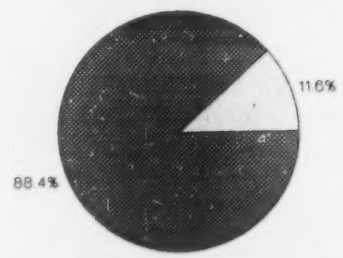
Sales Mix



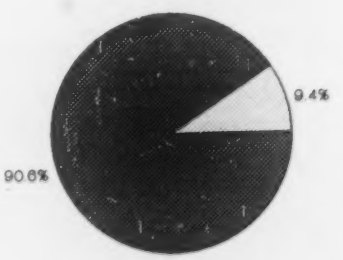
PLUMBING SUPPLIES & EQUIPMENT



INDUSTRIAL P-V-F



PLUMBING SUPPLIES & INDUSTRIAL P-V-F



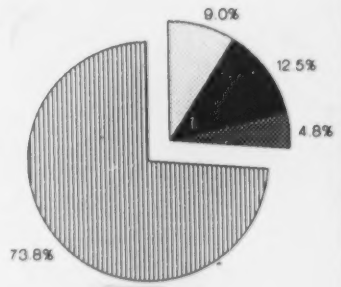
HVAC & OTHER EMPHASIS

Direct (Drop) Shipments

Warehouse Sales (Counter & Delivery

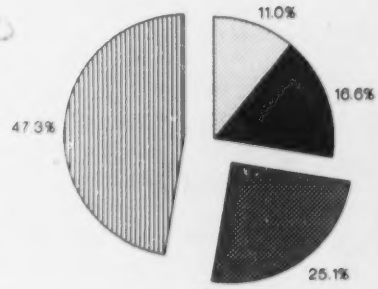
Product Mix

PLUMBING SUPPLIES & EQUIPMENT

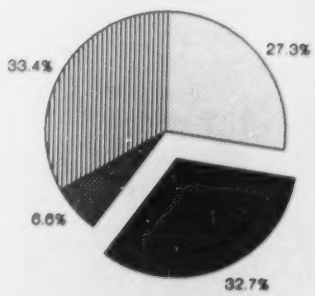


INDUSTRIAL P-V-F

PLUMBING SUPPLIES & INDUSTRIAL P-V-F



HVAC & OTHER EMPHASIS



Plumbing Supplies & Equipment

Heating & Cooling Supplies & Equipment

Industrial P-V-F

Other Industrial Supplies & Equipment & Other Products

PROFIT MODEL 1989 VS. 1988

Each year's ASA *Operating Performance Report* contains a special analysis showing industry profitability based on "return on net worth" (before tax). This single measure essentially summarizes all the key components of profitability: margin management, asset management, and financial policy (debt) management.

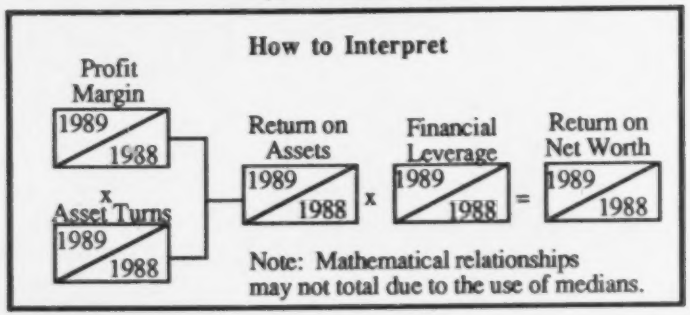
The exhibit on the following page shows the profit model for all wholesalers as well as the four types of wholesalers. This model is an extremely useful framework in which a company can quickly and easily see which areas of the business need improving. For those companies who received an ASA **Company Performance Report**, your company's figures have been calculated and displayed alongside the industry comparatives. This model's usefulness is best suited to an individual company wishing to compare their operations with a benchmark or guideline in hope of identifying improvement opportunities.

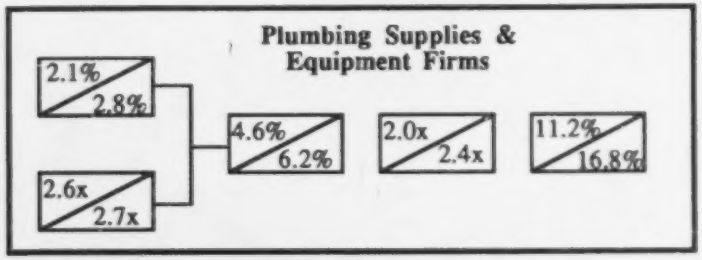
The easiest way to understand the model is by starting in the middle and working backwards. Return on assets, as the model indicates, is the product of the profit margin and asset turnover. Profit margin refers to net profit before tax divided by net sales and is a good measure of margin management, since in order to earn an acceptable profit a company must earn an acceptable gross margin while keeping expenses in line. Asset turnover depicts net sales divided by total assets and is a good measure of asset productivity. This measure indicates how many dollars in sales are being generated by each dollar of assets employed in the business. When asset turnover is multiplied by profit margin, the result is return on assets. Any improvement in your profit margin or asset turnover will improve the return on assets. Return on net worth, as the model shows, is the product of the return on assets and leverage. Leverage, an indicator of the degree to which debt is used for financing, magnifies the return on assets to yield the return on net worth. Given any level of profits, the more debt a company has (or the less net worth), the higher the return on net worth will be.

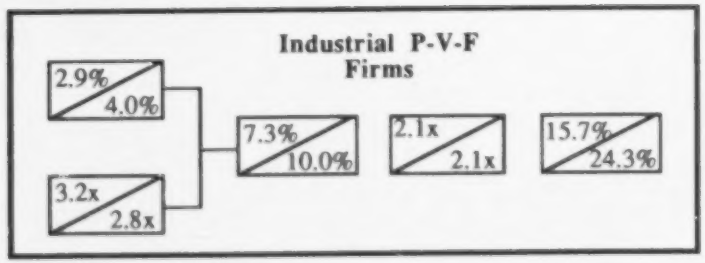
Based on the profit models shown for PHCP wholesalers, it is evident that lower profit margins were the main contributor to the lower return on assets and return on net worth. For **Industrial PVF** firms, somewhat higher asset turnover helped offset the lower profit margins in determining the return on assets.

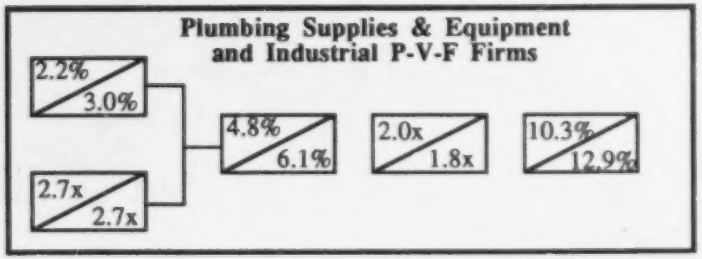
P-H-C-P WHOLESALER TWO YEAR STRATEGIC PROFIT MODEL RATIOS

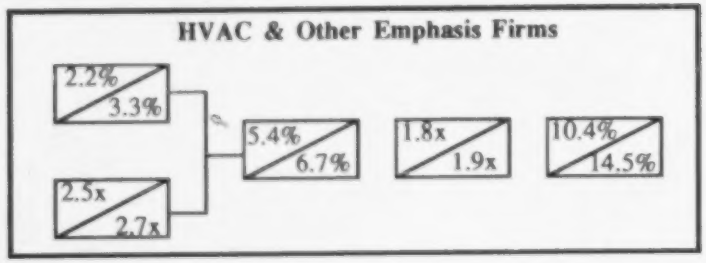
(1989 VS 1988)

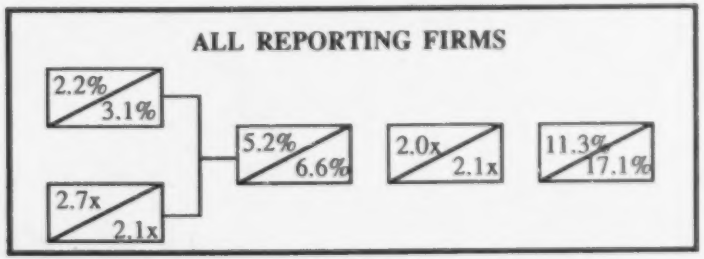












Note: All figures in the profit model are computed on a before tax basis

High Profit Firm Analysis

The primary purpose of the *Operating Performance Report* is to help PHCP wholesalers improve their performance. A useful tool for doing this is to study the performance characteristics of the high profit firms in the industry and then strive to emulate such performance.

It should be understood that not all highly profitable companies will exhibit the characteristics indicated by the accompanying "high profit" firm data. However, it is a good idea to focus attention on the characteristics of these profit leaders in order to help identify which business activities might yield the biggest profitability boost for your firm.

The following table is a summary of the key indicators of profitability, showing the results of the high profit firms as compared to the typical or median company performance. While there are certainly many differences in what highly profitable companies do to be profitable, some generalizations can be made.

As shown in the table, the high profit firms in each of the four groups of wholesalers experienced higher sales growth than other firms. High profit firms also consistently achieved higher gross margins and higher gross margin returns on inventory, indicating that these firms did an excellent job of managing inventory. Except for **Plumbing Supplies &Industrial PVF** firms, high profit firms reported a lower "operating expense as a percent of sales" than other firms. Personnel productivity was greater for high profit firms, achieving more sales per employee while keeping payroll costs as a percent of sales to a minimum (Again, it appears that **Plumbing Supplies & Industrial PVF** firms were the exception--gross margin management was the area in which these firms excelled to achieve high profit status). In the area of financial management, high profit firms had lower leverage than their counterparts, thus resulting in lower interest expenses as a percent of sales.

The following pages of this ASA *Operating Performance Report* contain the detailed results of the study.

1989 High Profit vs. "Typical Firm" Performance Comparison

	Plumbing Supplies & Equipment ----Firms----		Industrial P-V-F ----Firms----		Plumbing Supplies & Equipment & Industrial ---P-V-F Firms---		HVAC & Other Emphasis -----Firms-----	
	Typical	High Profit	Typical	High Profit	Typical	High Profit	Typical	High Profit
Profitability								
Net Profit (After Tax) to Total Assets	3.6%	10.6%	5.4%	16.1%	2.8%	11.0%	3.8%	8.7%
Net Profit (After Tax) to Net Worth	8.5%	18.2%	11.8%	36.7%	6.6%	14.4%	7.2%	12.7%
Net Profit (After Tax) to Net Sales	1.3%	3.8%	2.0%	4.7%	1.2%	4.9%	1.3%	4.7%
Asset and Financial Management								
Net Sales to Total Assets	2.6x	2.8x	3.2x	3.3x	2.7x	2.4x	2.5x	2.4x
Total Debt to Net Worth	97.8%	64.0%	106.6%	106.2%	108.0%	35.6%	74.7%	54.1%
Current Assets to Current Debt	2.2x	2.9x	2.4x	2.3x	2.7x	2.7x	2.7x	3.7x
Personnel Productivity								
Net Sales/Employee (000)	$212	$254	$244	$254	$224	$208	$219	$243
Payroll & Fringe Benefits to Net Sales	14.5%	13.4%	14.5%	13.1%	15.2%	16.1%	14.1%	14.3%
Inventory Management								
Gross Margin on Net Sales	25.8%	26.3%	26.7%	28.7%	24.3%	26.8%	24.5%	26.4%
Gross Margin on Direct Shipments	11.2%	14.5%	15.2%	ISD	12.1%	ISD	12.4%	17.4%
Gross Margin on Warehouse Sales	26.0%	26.5%	27.7%	ISD	25.6%	ISD	24.9%	26.3%
Cost of Warehouse Goods Sold to Average Inventory	4.0x	4.6x	4.4x	3.5x	3.9x	3.5x	3.4x	3.6x
% Warehouse Sales from Non-Stock Items	10.0%	9.4%	30.0%	20.5%	20.0%	20.0%	10.0%	1.0%
Cost of In-Stock Warehouse Sales to Average Inventory	3.5x	4.3x	2.9x	2.9x	3.2x	2.5x	3.0x	ISD
Total Cost of Goods Sold to Average Inventory	4.1x	5.0x	5.0x	5.2x	4.7x	4.1x	4.0x	3.9x
Warehouse Gross Margin Return on Average Inventory	133%	148%	146%	172%	140%	154%	118%	139%
Accounts Receivable								
Average Collection Period (Days)	50	47	42	40	54	59	44	38
Operating Expenses (% of Net Sales)								
Selling Expenses	6.0%	5.5%	7.5%	6.8%	6.2%	7.1%	7.1%	6.8%
Delivery Expenses	1.9%	1.7%	1.9%	2.2%	2.0%	1.9%	1.7%	1.7%
Warehouse Expenses	2.7%	2.9%	3.0%	2.9%	2.9%	3.4%	3.5%	2.0%
General & Admin. Expenses	10.0%	9.4%	8.9%	8.0%	8.3%	7.7%	8.6%	8.2%
Occupancy Expenses	2.4%	1.7%	1.9%	2.1%	2.2%	1.8%	1.9%	2.0%
Total Operating Expenses	23.9%	21.5%	23.4%	22.4%	22.2%	22.3%	22.5%	21.5%
Sales Performance								
Percent Sales Change from Prior Year	1.8%	4.9%	12.1%	14.7%	4.1%	6.0%	5.1%	6.4%

Plumbing Supplies & Equipment Firms

PLUMBING SUPPLIES & EQUIPMENT FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	8.5%	3.8 - 15.4%
Total Assets to Net Worth	2.0X	1.5 - 3.1X
Net Profit After Tax to Total Assets	3.6%	1.6 - 7.6%
Net Sales to Total Assets	2.6X	2.2 - 3.0X
Net Profit After Tax to Net Sales	1.3%	0.6 - 2.7%
Net Profit Before Tax to Net Worth	11.2%	4.9 - 19.9%
Net Profit Before Tax to Total Assets	4.6%	1.9 - 10.0%
EBIT to Total Assets	8.1%	5.3 - 11.3%
SALES ANALYSIS		
Net Sales($000)	$7,368	$4,535 - 14,049
Percent Sales Change from Prior Year	1.8%	-2.4 - 7.7%
Sales Mix:		
Direct Sales	8.6%	3.5 - 11.8%
Warehouse Sales - Counter and Delivery	91.4%	88.2 - 96.5%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	73.8%	60.0 - 90.0%
Heating & Cooling Supplies & Equipment	12.5%	0.0 - 20.0%
Industrial P-V-F (Pipes-Valves-Fittings)	4.8%	0.0 - 6.5%
Other Industrial Supplies & Equipment	1.3%	0.0 - 0.0%
Other Products	7.7%	0.0 - 7.5%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	25.8%	22.5 - 28.6%
Gross Margin on Direct Shipments	11.2%	9.5 - 15.1%
Gross Margin on Warehouse Sales	26.0%	23.4 - 29.1%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.99X	2.65 - 3.45X
Total Debt to Net Worth	97.8%	52.2 - 206.7%
Current Debt to Net Worth	79.2%	38.8 - 170.5%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.19X	1.68 - 3.50X
Current Assets Minus Inventory/Curr Debt	0.98X	0.71 - 1.52X
Net Sales to Working Capital	5.9X	4.0 - 8.8X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.9%	1.5 - 4.7%
Net Profit Before Tax plus Depreciation to Total Assets	7.0%	3.8 - 10.9%
Working Capital to Total Assets	44.9%	32.7 - 57.2%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.0	4.5 - 8.0
Average Invoice Size	$175	$114 - 225
Average Billing Line	$27.66	$16.05 - 36.28

PLUMBING SUPPLIES & EQUIPMENT FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$212,273	$182,772 - 256,154
Gross Margin Per Employee	$52,929	$45,652 - 62,871
Average Compensation Per Employee	$26,100	$22,871 - 30,121
Average Fringe Benefits Per Employee	$4,607	$3,416 - 6,270
Compensation & Fringes Per Employee	$30,863	$26,409 - 35,723
Payroll to Net Sales	12.1%	10.9 - 14.4%
Fringe Benefits to Net Sales	2.3%	1.7 - 2.8%
Payroll & Fringes to Net Sales	14.5%	12.9 - 17.3%
Payroll to Gross Margin	49.3%	44.7 - 54.3%
Fringe Benefits to Gross Margin	8.7%	7.4 - 11.2%
Payroll & Fringes to Gross Margin	57.6%	53.0 - 64.4%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	4.00X	3.12 - 4.69X
% of Whse Sales from Non-Stock Items	10.0%	4.4 - 15.4%
Cost of In-Stock Whse Sales/Ave Inventory	3.52X	2.76 - 4.24X
No. of Days Average Inventory Carried	91 Days	78 - 117 Days
Total Cost of Goods Sold to Ave Inventory	4.10X	3.29 - 5.11X
Whse Gross Margin Return on Ave Inventory	133%	105 - 165%
Turn & Earn Profitability Index	97%	80 - 117%
Percent of Firms on LIFO	54.2%	
ACCOUNTS RECEIVABLE		
Average Collection Period	50 Days	41 - 58 Days
Gross Margin Return on Receivables	185%	151 - 229%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	64.8%	57.9 - 72.8%
31-60 Days Outstanding	17.3%	13.9 - 20.6%
61-90 Days Outstanding	7.1%	4.3 - 9.4%
Over 90 Days Outstanding	10.8%	6.0 - 14.2%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,391	$889 - 2,107
31-60 Days Outstanding	$1,795	$975 - 2,685
61-90 Days Outstanding	$1,545	$942 - 2,375
Over 90 Days Outstanding	$2,056	$1,235 - 4,013
Total	$1,519	$810 - 2,146
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	68.3%	60.5 - 78.6%
31-60 Days Outstanding	16.5%	12.4 - 19.8%
61-90 Days Outstanding	7.3%	3.5 - 9.0%
Over 90 Days Outstanding	8.0%	4.2 - 10.2%
Total	100.0%	100.0 - 100.0%

PLUMBING SUPPLIES & EQUIPMENT FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.2%	71.4 - 77.5%
Gross Margin	25.8%	22.5 - 28.6%
Operating Expenses:		
Selling Expenses	6.0%	4.6 - 7.7%
Delivery Expenses	1.9%	1.2 - 2.5%
Warehouse Expenses	2.7%	1.5 - 3.6%
General & Administrative Expenses	10.0%	7.4 - 11.8%
Occupancy Expenses	2.4%	1.3 - 3.2%
Other Operating Expenses	0.9%	0.0 - 0.1%
Total Operating Expenses	23.9%	20.2 - 26.8%
Net Operating Profit	1.9%	0.3 - 3.6%
Non-Operating Income	2.1%	1.4 - 2.8%
Non-Operating Expenses	2.0%	1.0 - 2.8%
Net Profit Before Tax	2.1%	0.8 - 3.6%
Net Profit After Tax	1.3%	0.6 - 2.7%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	23.9%	20.2 - 26.8%
Total Operating Expense to Gross Margin	92.7%	87.0 - 98.6%
Non-People Expense to Net Sales	8.7%	6.8 - 10.1%
Non-People Expense to Gross Margin	33.9%	28.1 - 38.3%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.9%	0.5 - 1.7%
Times Interest Earned	2.8X	1.6 - 6.3X
BALANCE SHEET		
Cash	4.9%	0.5 - 5.3%
Accounts & Notes Receivable, Trade(Net)	31.3%	24.8 - 36.9%
Inventory	48.1%	42.6 - 54.3%
Other Current Assets	1.8%	0.4 - 2.2%
Total Current Assets	86.1%	81.7 - 93.0%
All Other Assets	14.0%	7.0 - 18.3%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	39.6%	24.1 - 51.9%
Total Long-Term Liabilities	12.4%	0.6 - 18.6%
Total Liabilities	52.0%	34.8 - 68.5%
Total Net Worth	48.0%	31.5 - 65.2%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES UNDER $4,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	8.2%	3.3 - 13.5%
Total Assets to Net Worth	1.7X	1.2 - 2.2X
Net Profit After Tax to Total Assets	3.8%	1.0 - 8.1%
Net Sales to Total Assets	2.4X	2.1 - 2.6X
Net Profit After Tax to Net Sales	1.5%	0.4 - 3.4%
Net Profit Before Tax to Net Worth	8.5%	4.3 - 18.0%
Net Profit Before Tax to Total Assets	4.6%	1.3 - 8.9%
EBIT to Total Assets	8.0%	4.3 - 10.8%
SALES ANALYSIS		
Net Sales($000)	$2,420	$1,806 - 3,054
Percent Sales Change from Prior Year	1.1%	-2.5 - 5.6%
Sales Mix:		
Direct Sales	5.7%	1.1 - 8.0%
Warehouse Sales - Counter and Delivery	94.3%	92.0 - 98.9%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	73.2%	59.8 - 95.8%
Heating & Cooling Supplies & Equipment	9.4%	0.0 - 16.3%
Industrial P-V-F (Pipes-Valves-Fittings)	5.3%	0.0 - 6.3%
Other Industrial Supplies & Equipment	1.4%	0.0 - 1.3%
Other Products	10.7%	0.0 - 7.8%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	27.8%	23.4 - 30.5%
Gross Margin on Direct Shipments	INSUFFICIENT DATA	
Gross Margin on Warehouse Sales	27.4%	
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.80X	2.51 - 2.98X
Total Debt to Net Worth	66.6%	23.3 - 122.7%
Current Debt to Net Worth	32.5%	15.7 - 77.5%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	3.99X	2.43 - 6.08X
Current Assets Minus Inventory/Curr Debt	1.24X	0.96 - 2.33X
Net Sales to Working Capital	4.5X	
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	1.1%	
Net Profit Before Tax plus Depreciation to Total Assets	2.1%	
Working Capital to Total Assets	54.5%	
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.5	5.0 - 8.1
Average Invoice Size	$118	$92 - 175
Average Billing Line	$19.05	$12.61 - 23.47

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES UNDER $4,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$161,695	$129,300 - 212,056
Gross Margin Per Employee	$43,273	$37,359 - 48,271
Average Compensation Per Employee	$24,199	$19,069 - 25,711
Average Fringe Benefits Per Employee	$3,547	$2,468 - 5,189
Compensation & Fringes Per Employee	$26,784	$22,528 - 31,379
Payroll to Net Sales	14.7%	11.8 - 15.8%
Fringe Benefits to Net Sales	2.4%	2.1 - 2.8%
Payroll & Fringes to Net Sales	15.6%	14.8 - 19.3%
Payroll to Gross Margin	51.8%	49.2 - 56.4%
Fringe Benefits to Gross Margin	8.4%	7.4 - 11.5%
Payroll & Fringes to Gross Margin	63.7%	56.1 - 66.4%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.42X	3.07 - 4.67X
% of Whse Sales from Non-Stock Items	5.9%	3.3 - 10.0%
Cost of In-Stock Whse Sales/Ave Inventory	2.93X	2.71 - 3.98X
No. of Days Average Inventory Carried	107 Days	78 - 119 Days
Total Cost of Goods Sold to Ave Inventory	3.29X	2.86 - 4.16X
Whse Gross Margin Return on Ave Inventory	115%	109 - 148%
Turn & Earn Profitability Index	86%	
Percent of Firms on LIFO	31.6%	
ACCOUNTS RECEIVABLE		
Average Collection Period	52 Days	41 - 56 Days
Gross Margin Return on Receivables	221%	150 - 254%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	71.6%	67.9 - 77.1%
31-60 Days Outstanding	13.8%	10.0 - 17.3%
61-90 Days Outstanding	5.2%	3.0 - 7.1%
Over 90 Days Outstanding	9.4%	6.8 - 10.5%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$523	$454 - 1,291
31-60 Days Outstanding	$796	$708 - 1,315
61-90 Days Outstanding	$900	$679 - 1,136
Over 90 Days Outstanding	$1,331	$1,039 - 2,721
Total	$572	$559 - 1,259
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	72.2%	67.1 - 75.1%
31-60 Days Outstanding	16.1%	12.7 - 19.6%
61-90 Days Outstanding	6.1%	3.1 - 8.1%
Over 90 Days Outstanding	5.6%	2.4 - 7.9%
Total	100.0%	100.0 - 100.0%

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES UNDER $4,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	72.2%	69.5 - 76.6%
Gross Margin	27.8%	23.4 - 30.5%
Operating Expenses:		
Selling Expenses	5.1%	3.2 - 7.1%
Delivery Expenses	1.9%	1.2 - 2.4%
Warehouse Expenses	2.9%	1.4 - 4.8%
General & Administrative Expenses	13.8%	9.6 - 14.7%
Occupancy Expenses	2.6%	1.2 - 3.4%
Other Operating Expenses	0.2%	0.0 - 0.0%
Total Operating Expenses	26.6%	22.1 - 28.1%
Net Operating Profit	1.3%	-0.3 - 4.3%
Non-Operating Income	2.1%	1.4 - 2.9%
Non-Operating Expenses	1.8%	1.1 - 2.1%
Net Profit Before Tax	1.6%	0.8 - 3.5%
Net Profit After Tax	1.5%	0.4 - 3.4%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	26.6%	22.1 - 28.1%
Total Operating Expense to Gross Margin	96.3%	87.3 - 101.2%
Non-People Expense to Net Sales	9.8%	7.2 - 10.4%
Non-People Expense to Gross Margin	35.4%	24.7 - 42.6%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.8%	0.3 - 1.5%
Times Interest Earned	2.7X	1.7 - 4.6X
BALANCE SHEET		
Cash	5.6%	0.9 - 7.5%
Accounts & Notes Receivable, Trade(Net)	27.0%	21.1 - 30.4%
Inventory	51.0%	41.9 - 60.0%
Other Current Assets	1.6%	0.1 - 2.6%
Total Current Assets	85.1%	78.3 - 92.4%
All Other Assets	14.9%	7.6 - 21.7%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	26.4%	13.4 - 33.9%
Total Long-Term Liabilities	18.5%	0.0 - 21.7%
Total Liabilities	44.9%	19.1 - 57.1%
Total Net Worth	55.1%	42.9 - 80.9%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES $4,000,000 TO $7,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	6.9%	3.6 - 12.8%
Total Assets to Net Worth	1.8X	1.5 - 2.6X
Net Profit After Tax to Total Assets	3.4%	1.7 - 7.8%
Net Sales to Total Assets	2.6X	2.2 - 3.1X
Net Profit After Tax to Net Sales	1.3%	0.6 - 2.9%
Net Profit Before Tax to Net Worth	9.3%	4.3 - 16.8%
Net Profit Before Tax to Total Assets	4.4%	2.1 - 10.6%
EBIT to Total Assets	7.7%	4.2 - 11.0%
SALES ANALYSIS		
Net Sales($000)	$5,228	$4,566 - 5,980
Percent Sales Change from Prior Year	-0.0%	-5.8 - 8.4%
Sales Mix:		
Direct Sales	7.9%	3.0 - 12.4%
Warehouse Sales - Counter and Delivery	92.1%	87.6 - 97.0%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	75.4%	62.0 - 90.0%
Heating & Cooling Supplies & Equipment	14.3%	0.5 - 25.0%
Industrial P-V-F (Pipes-Valves-Fittings)	5.1%	0.0 - 5.0%
Other Industrial Supplies & Equipment	0.7%	0.0 - 0.0%
Other Products	4.6%	0.0 - 3.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	26.4%	23.6 - 27.9%
Gross Margin on Direct Shipments	14.1%	9.9 - 21.4%
Gross Margin on Warehouse Sales	26.5%	23.8 - 29.1%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.91X	2.58 - 3.61X
Total Debt to Net Worth	80.2%	50.6 - 161.5%
Current Debt to Net Worth	67.2%	41.4 - 88.0%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.43X	2.02 - 3.39X
Current Assets Minus Inventory/Curr Debt	1.13X	0.84 - 1.65X
Net Sales to Working Capital	4.2X	3.3 - 6.8X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	3.7%	1.9 - 5.3%
Net Profit Before Tax plus Depreciation to Total Assets	9.2%	5.2 - 11.9%
Working Capital to Total Assets	54.5%	49.9 - 68.9%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.0	4.5 - 10.0
Average Invoice Size	$188	$122 - 226
Average Billing Line	$27.66	$16.03 - 37.71

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES $4,000,000 TO $7,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$207,262	$163,473 - 229,780
Gross Margin Per Employee	$54,154	$46,556 - 61,185
Average Compensation Per Employee	$26,856	$22,946 - 29,808
Average Fringe Benefits Per Employee	$4,607	$3,383 - 6,336
Compensation & Fringes Per Employee	$31,275	$26,038 - 35,723
Payroll to Net Sales	12.6%	11.6 - 15.2%
Fringe Benefits to Net Sales	2.3%	1.9 - 2.9%
Payroll & Fringes to Net Sales	15.0%	13.3 - 17.9%
Payroll to Gross Margin	49.7%	45.6 - 56.7%
Fringe Benefits to Gross Margin	9.0%	7.2 - 11.3%
Payroll & Fringes to Gross Margin	58.7%	54.0 - 66.4%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.97X	2.92 - 4.77X
% of Whse Sales from Non-Stock Items	10.0%	4.4 - 17.7%
Cost of In-Stock Whse Sales/Ave Inventory	3.60X	2.61 - 4.25X
No. of Days Average Inventory Carried	92 Days	77 - 125 Days
Total Cost of Goods Sold to Ave Inventory	3.95X	3.17 - 5.49X
Whse Gross Margin Return on Ave Inventory	140%	99 - 166%
Turn & Earn Profitability Index	96%	80 - 113%
Percent of Firms on LIFO	48.4%	
ACCOUNTS RECEIVABLE		
Average Collection Period	50 Days	40 - 58 Days
Gross Margin Return on Receivables	190%	164 - 234%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	66.2%	59.0 - 74.6%
31-60 Days Outstanding	16.3%	13.2 - 18.6%
61-90 Days Outstanding	7.0%	3.7 - 9.7%
Over 90 Days Outstanding	10.5%	4.9 - 18.0%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,337	$928 - 2,783
31-60 Days Outstanding	$2,185	$1,148 - 2,964
61-90 Days Outstanding	$1,671	$1,127 - 2,352
Over 90 Days Outstanding	$1,688	$841 - 3,527
Total	$1,381	$866 - 2,668
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	68.8%	61.3 - 79.9%
31-60 Days Outstanding	14.6%	11.3 - 17.4%
61-90 Days Outstanding	7.5%	5.1 - 10.1%
Over 90 Days Outstanding	9.1%	3.5 - 10.5%
Total	100.0%	100.0 - 100.0%

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES $4,000,000 TO $7,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	73.6%	72.1 - 76.5%
Gross Margin	26.4%	23.6 - 27.9%
Operating Expenses:		
Selling Expenses	6.9%	4.9 - 8.1%
Delivery Expenses	1.8%	1.2 - 2.5%
Warehouse Expenses	2.8%	1.4 - 3.4%
General & Administrative Expenses	9.4%	6.9 - 11.6%
Occupancy Expenses	2.3%	1.3 - 3.4%
Other Operating Expenses	1.6%	0.0 - 0.3%
Total Operating Expenses	24.8%	20.2 - 28.3%
Net Operating Profit	1.6%	0.3 - 3.3%
Non-Operating Income	2.1%	1.5 - 2.8%
Non-Operating Expenses	1.9%	1.0 - 2.7%
Net Profit Before Tax	1.8%	0.5 - 4.1%
Net Profit After Tax	1.3%	0.6 - 2.9%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	24.8%	20.2 - 28.3%
Total Operating Expense to Gross Margin	93.4%	87.8 - 98.8%
Non-People Expense to Net Sales	9.0%	6.6 - 11.2%
Non-People Expense to Gross Margin	33.6%	27.3 - 38.8%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.7%	0.4 - 1.5%
Times Interest Earned	2.8X	1.7 - 7.3X
BALANCE SHEET		
Cash	6.9%	0.8 - 10.8%
Accounts & Notes Receivable, Trade(Net)	30.9%	24.1 - 36.6%
Inventory	47.1%	41.3 - 52.0%
Other Current Assets	1.2%	0.3 - 1.7%
Total Current Assets	86.1%	82.3 - 93.5%
All Other Assets	13.9%	6.6 - 17.7%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	35.5%	23.9 - 44.0%
Total Long-Term Liabilities	12.1%	0.6 - 16.9%
Total Liabilities	47.6%	34.1 - 63.9%
Total Net Worth	52.4%	36.1 - 65.9%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES $7,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	10.1%	5.5 - 18.8%
Total Assets to Net Worth	2.5X	1.7 - 3.5X
Net Profit After Tax to Total Assets	4.5%	2.4 - 6.5%
Net Sales to Total Assets	2.8X	2.4 - 2.9X
Net Profit After Tax to Net Sales	1.9%	0.9 - 2.6%
Net Profit Before Tax to Net Worth	15.0%	8.4 - 24.6%
Net Profit Before Tax to Total Assets	6.0%	4.1 - 8.9%
EBIT to Total Assets	9.2%	6.4 - 12.1%
SALES ANALYSIS		
Net Sales($000)	$8,365	$7,644 - 9,600
Percent Sales Change from Prior Year	1.8%	-1.1 - 7.3%
Sales Mix:		
Direct Sales	7.4%	3.7 - 8.9%
Warehouse Sales - Counter and Delivery	92.6%	91.1 - 96.3%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	80.4%	66.3 - 98.8%
Heating & Cooling Supplies & Equipment	12.6%	0.0 - 21.5%
Industrial P-V-F (Pipes-Valves-Fittings)	2.6%	0.0 - 3.8%
Other Industrial Supplies & Equipment	1.3%	0.0 - 0.0%
Other Products	3.1%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	25.6%	22.8 - 29.1%
Gross Margin on Direct Shipments	10.5%	7.5 - 13.9%
Gross Margin on Warehouse Sales	25.6%	23.5 - 28.8%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.05X	2.69 - 3.28X
Total Debt to Net Worth	136.5%	72.8 - 256.9%
Current Debt to Net Worth	100.1%	70.8 - 226.6%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	1.97X	1.59 - 2.89X
Current Assets Minus Inventory/Curr Debt	0.86X	0.67 - 1.44X
Net Sales to Working Capital	5.9X	4.7 - 8.2X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	3.4%	2.4 - 4.3%
Net Profit Before Tax plus Depreciation to Total Assets	8.4%	6.3 - 10.6%
Working Capital to Total Assets	46.3%	35.2 - 55.2%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.5	4.2 - 8.5
Average Invoice Size	$179	$125 - 229
Average Billing Line	$28.60	$24.15 - 33.62

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES $7,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$223,153	$203,367 - 259,019
Gross Margin Per Employee	$58,453	$49,247 - 65,555
Average Compensation Per Employee	$26,954	$24,265 - 29,983
Average Fringe Benefits Per Employee	$4,644	$4,227 - 6,246
Compensation & Fringes Per Employee	$32,073	$28,595 - 36,491
Payroll to Net Sales	11.8%	11.0 - 13.3%
Fringe Benefits to Net Sales	2.3%	1.9 - 2.7%
Payroll & Fringes to Net Sales	14.5%	12.9 - 15.7%
Payroll to Gross Margin	48.7%	42.4 - 51.6%
Fringe Benefits to Gross Margin	8.7%	7.6 - 10.3%
Payroll & Fringes to Gross Margin	56.7%	52.3 - 60.0%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.71X	3.27 - 4.69X
% of Whse Sales from Non-Stock Items	8.9%	5.0 - 15.0%
Cost of In-Stock Whse Sales/Ave Inventory	3.46X	3.14 - 4.45X
No. of Days Average Inventory Carried	98 Days	78 - 112 Days
Total Cost of Goods Sold to Ave Inventory	4.05X	3.55 - 4.96X
Whse Gross Margin Return on Ave Inventory	133%	115 - 159%
Turn & Earn Profitability Index	97%	81 - 114%
Percent of Firms on LIFO	44.8%	
ACCOUNTS RECEIVABLE		
Average Collection Period	47 Days	41 - 57 Days
Gross Margin Return on Receivables	186%	156 - 216%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	62.0%	55.0 - 70.1%
31-60 Days Outstanding	19.0%	15.2 - 23.4%
61-90 Days Outstanding	7.7%	4.8 - 10.8%
Over 90 Days Outstanding	11.4%	5.8 - 13.7%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,363	$969 - 1,842
31-60 Days Outstanding	$1,799	$997 - 2,670
61-90 Days Outstanding	$1,594	$989 - 3,086
Over 90 Days Outstanding	$2,176	$1,753 - 4,901
Total	$1,548	$1,236 - 2,038
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	68.0%	62.1 - 79.7%
31-60 Days Outstanding	17.8%	12.3 - 21.1%
61-90 Days Outstanding	7.3%	3.0 - 8.8%
Over 90 Days Outstanding	6.9%	4.6 - 8.3%
Total	100.0%	100.0 - 100.0%

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES $7,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.4%	70.9 - 77.2%
Gross Margin	25.6%	22.8 - 29.1%
Operating Expenses:		
Selling Expenses	5.1%	2.8 - 6.7%
Delivery Expenses	1.7%	1.2 - 2.3%
Warehouse Expenses	2.4%	1.5 - 2.9%
General & Administrative Expenses	10.1%	8.0 - 12.0%
Occupancy Expenses	2.6%	1.6 - 3.2%
Other Operating Expenses	1.1%	0.0 - 0.0%
Total Operating Expenses	23.1%	21.0 - 26.1%
Net Operating Profit	2.5%	1.4 - 4.0%
Non-Operating Income	2.0%	1.1 - 2.6%
Non-Operating Expenses	1.9%	0.9 - 2.8%
Net Profit Before Tax	2.7%	1.2 - 3.9%
Net Profit After Tax	1.9%	0.9 - 2.6%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	23.1%	21.0 - 26.1%
Total Operating Expense to Gross Margin	90.4%	84.3 - 94.4%
Non-People Expense to Net Sales	8.5%	7.1 - 10.2%
Non-People Expense to Gross Margin	33.2%	30.4 - 37.1%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.0%	0.5 - 1.9%
Times Interest Earned	3.6X	1.8 - 8.1X
BALANCE SHEET		
Cash	5.4%	0.3 - 3.5%
Accounts & Notes Receivable, Trade(Net)	33.1%	26.4 - 39.4%
Inventory	49.3%	45.7 - 59.5%
Other Current Assets	2.3%	0.6 - 3.1%
Total Current Assets	90.1%	87.8 - 94.8%
All Other Assets	9.9%	5.2 - 12.2%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	44.3%	29.4 - 58.5%
Total Long-Term Liabilities	9.2%	0.6 - 14.9%
Total Liabilities	53.5%	42.1 - 72.0%
Total Net Worth	46.5%	28.0 - 57.9%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	8.8%	3.2 - 15.5%
Total Assets to Net Worth	2.4X	1.8 - 4.7X
Net Profit After Tax to Total Assets	2.8%	1.0 - 6.6%
Net Sales to Total Assets	2.8X	2.3 - 3.1X
Net Profit After Tax to Net Sales	1.1%	0.5 - 2.3%
Net Profit Before Tax to Net Worth	13.6%	4.2 - 21.8%
Net Profit Before Tax to Total Assets	3.9%	1.5 - 9.8%
EBIT to Total Assets	7.9%	5.8 - 10.6%
SALES ANALYSIS		
Net Sales($000)	$20,999	$15,730 - 35,182
Percent Sales Change from Prior Year	3.7%	-1.8 - 11.7%
Sales Mix:		
Direct Sales	10.9%	6.0 - 14.7%
Warehouse Sales - Counter and Delivery	89.1%	85.3 - 94.0%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	67.5%	55.5 - 80.0%
Heating & Cooling Supplies & Equipment	12.6%	0.0 - 19.0%
Industrial P-V-F (Pipes-Valves-Fittings)	5.8%	0.0 - 10.0%
Other Industrial Supplies & Equipment	1.8%	0.0 - 2.0%
Other Products	12.4%	0.0 - 15.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	24.3%	21.8 - 26.2%
Gross Margin on Direct Shipments	11.3%	10.0 - 14.8%
Gross Margin on Warehouse Sales	25.5%	22.7 - 28.1%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.28X	2.86 - 3.53X
Total Debt to Net Worth	162.1%	76.3 - 393.1%
Current Debt to Net Worth	122.8%	52.3 - 246.2%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	1.75X	1.39 - 2.39X
Current Assets Minus Inventory/Curr Debt	0.76X	0.60 - 1.12X
Net Sales to Working Capital	6.9X	5.0 - 13.6X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.6%	1.3 - 3.2%
Net Profit Before Tax plus Depreciation to Total Assets	6.0%	3.1 - 7.1%
Working Capital to Total Assets	34.8%	21.8 - 47.3%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.5	4.2 - 6.8
Average Invoice Size	$187	$147 - 225
Average Billing Line	$32.08	$18.38 - 46.72

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$232,051	$188,580 - 277,482
Gross Margin Per Employee	$53,008	$46,183 - 67,187
Average Compensation Per Employee	$25,333	$22,831 - 31,364
Average Fringe Benefits Per Employee	$4,780	$3,675 - 6,270
Compensation & Fringes Per Employee	$31,467	$26,310 - 35,919
Payroll to Net Sales	11.8%	9.6 - 13.0%
Fringe Benefits to Net Sales	1.8%	1.6 - 2.7%
Payroll & Fringes to Net Sales	13.9%	11.1 - 15.1%
Payroll to Gross Margin	48.4%	44.5 - 53.2%
Fringe Benefits to Gross Margin	9.0%	7.4 - 11.2%
Payroll & Fringes to Gross Margin	57.1%	53.8 - 62.7%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	4.05X	3.27 - 4.55X
% of Whse Sales from Non-Stock Items	12.0%	6.8 - 15.9%
Cost of In-Stock Whse Sales/Ave Inventory	3.53X	2.74 - 3.84X
No. of Days Average Inventory Carried	90 Days	80 - 112 Days
Total Cost of Goods Sold to Ave Inventory	4.52X	3.95 - 5.33X
Whse Gross Margin Return on Ave Inventory	133%	99 - 169%
Turn & Earn Profitability Index	105%	73 - 125%
Percent of Firms on LIFO	76.9%	
ACCOUNTS RECEIVABLE		
Average Collection Period	52 Days	43 - 60 Days
Gross Margin Return on Receivables	166%	143 - 199%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	63.5%	57.0 - 68.2%
31-60 Days Outstanding	17.9%	14.9 - 20.7%
61-90 Days Outstanding	7.5%	5.6 - 9.1%
Over 90 Days Outstanding	11.1%	6.9 - 14.2%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$2,089	$1,599 - 2,442
31-60 Days Outstanding	$2,161	$1,770 - 2,922
61-90 Days Outstanding	$2,147	$1,609 - 2,550
Over 90 Days Outstanding	$2,915	$1,665 - 4,212
Total	$1,745	$1,169 - 2,284
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	64.2%	57.5 - 69.2%
31-60 Days Outstanding	17.8%	14.7 - 21.0%
61-90 Days Outstanding	7.9%	6.8 - 8.9%
Over 90 Days Outstanding	10.1%	5.5 - 11.6%
Total	100.0%	100.0 - 100.0%

PLUMBING SUPPLIES & EQUIPMENT FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.7%	73.8 - 78.3%
Gross Margin	24.3%	21.8 - 26.2%
Operating Expenses:		
Selling Expenses	6.6%	5.6 - 7.8%
Delivery Expenses	2.0%	1.3 - 2.7%
Warehouse Expenses	2.9%	1.9 - 3.9%
General & Administrative Expenses	8.2%	6.1 - 9.3%
Occupancy Expenses	2.2%	1.6 - 2.8%
Other Operating Expenses	0.4%	0.0 - 0.1%
Total Operating Expenses	22.3%	19.0 - 25.4%
Net Operating Profit	2.0%	0.3 - 3.0%
Non-Operating Income	2.1%	1.3 - 3.0%
Non-Operating Expenses	2.2%	1.3 - 2.8%
Net Profit Before Tax	2.0%	0.8 - 2.6%
Net Profit After Tax	1.1%	0.5 - 2.3%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.3%	19.0 - 25.4%
Total Operating Expense to Gross Margin	92.0%	87.5 - 98.6%
Non-People Expense to Net Sales	8.2%	6.7 - 9.9%
Non-People Expense to Gross Margin	33.9%	29.1 - 38.1%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.2%	0.7 - 1.8%
Times Interest Earned	2.2X	1.5 - 4.4X
BALANCE SHEET		
Cash	2.2%	0.4 - 3.0%
Accounts & Notes Receivable, Trade(Net)	33.1%	29.0 - 37.1%
Inventory	46.2%	41.5 - 51.0%
Other Current Assets	2.0%	0.4 - 2.5%
Total Current Assets	83.4%	76.7 - 92.4%
All Other Assets	16.6%	7.6 - 23.3%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	48.3%	33.9 - 64.7%
Total Long-Term Liabilities	11.1%	2.7 - 18.3%
Total Liabilities	59.4%	43.3 - 79.5%
Total Net Worth	40.6%	20.5 - 56.7%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

HIGH PROFIT PLUMBING SUPPLIES & EQUIPMENT FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	18.2%	13.9 - 25.0%
Total Assets to Net Worth	1.6X	1.4 - 2.2X
Net Profit After Tax to Total Assets	10.6%	8.1 - 14.7%
Net Sales to Total Assets	2.8X	2.5 - 3.1X
Net Profit After Tax to Net Sales	3.8%	2.8 - 4.8%
Net Profit Before Tax to Net Worth	26.2%	18.9 - 36.3%
Net Profit Before Tax to Total Assets	15.3%	11.9 - 17.3%
EBIT to Total Assets	16.1%	13.7 - 19.2%
SALES ANALYSIS		
Net Sales($000)	$7,053	$4,902 - 14,176
Percent Sales Change from Prior Year	4.9%	-2.2 - 9.8%
Sales Mix:		
Direct Sales	8.0%	3.2 - 10.5%
Warehouse Sales - Counter and Delivery	92.0%	89.5 - 96.8%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	68.7%	56.5 - 82.5%
Heating & Cooling Supplies & Equipment	14.6%	4.0 - 22.5%
Industrial P-V-F (Pipes-Valves-Fittings)	5.6%	0.0 - 10.0%
Other Industrial Supplies & Equipment	1.3%	0.0 - 1.5%
Other Products	9.9%	0.0 - 10.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	26.3%	22.7 - 27.6%
Gross Margin on Direct Shipments	14.5%	11.3 - 17.5%
Gross Margin on Warehouse Sales	26.5%	23.6 - 27.7%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.21X	2.81 - 3.79X
Total Debt to Net Worth	64.0%	36.4 - 121.2%
Current Debt to Net Worth	46.3%	30.5 - 84.0%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.92X	1.97 - 4.37X
Current Assets Minus Inventory/Curr Debt	1.46X	0.94 - 2.03X
Net Sales to Working Capital	4.5X	3.2 - 6.2X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	6.7%	5.0 - 6.9%
Net Profit Before Tax plus Depreciation to Total Assets	15.7%	12.6 - 18.2%
Working Capital to Total Assets	57.1%	47.1 - 65.0%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	7.0	5.0 - 10.0
Average Invoice Size	$186	$123 - 210
Average Billing Line	$26.61	$16.93 - 33.12

HIGH PROFIT PLUMBING SUPPLIES & EQUIPMENT FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$253,935	$222,586 - 290,934
Gross Margin Per Employee	$61,868	$53,697 - 72,040
Average Compensation Per Employee	$27,568	$24,370 - 32,855
Average Fringe Benefits Per Employee	$4,770	$4,322 - 6,256
Compensation & Fringes Per Employee	$32,551	$27,442 - 38,690
Payroll to Net Sales	11.7%	10.3 - 13.0%
Fringe Benefits to Net Sales	2.1%	1.6 - 2.7%
Payroll & Fringes to Net Sales	13.4%	12.1 - 15.1%
Payroll to Gross Margin	44.6%	41.6 - 47.7%
Fringe Benefits to Gross Margin	8.4%	6.9 - 10.3%
Payroll & Fringes to Gross Margin	52.5%	46.9 - 57.9%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	4.57X	3.93 - 5.43X
% of Whse Sales from Non-Stock Items	9.4%	2.7 - 14.3%
Cost of In-Stock Whse Sales/Ave Inventory	4.26X	3.30 - 4.90X
No. of Days Average Inventory Carried	80 Days	67 - 93 Days
Total Cost of Goods Sold to Ave Inventory	5.00X	4.00 - 6.03X
Whse Gross Margin Return on Ave Inventory	148%	134 - 202%
Turn & Earn Profitability Index	106%	93 - 129%
Percent of Firms on LIFO	55.2%	
ACCOUNTS RECEIVABLE		
Average Collection Period	47 Days	40 - 57 Days
Gross Margin Return on Receivables	211%	181 - 247%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	66.9%	59.9 - 72.8%
31-60 Days Outstanding	17.3%	15.6 - 20.0%
61-90 Days Outstanding	7.7%	5.0 - 9.6%
Over 90 Days Outstanding	8.2%	2.8 - 12.1%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,461	$974 - 2,088
31-60 Days Outstanding	$1,918	$1,140 - 2,566
61-90 Days Outstanding	$1,681	$1,183 - 2,075
Over 90 Days Outstanding	$2,114	$1,409 - 2,891
Total	$1,560	$1,049 - 2,096
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	72.1%	64.2 - 81.9%
31-60 Days Outstanding	14.4%	12.1 - 18.1%
61-90 Days Outstanding	6.6%	3.7 - 8.6%
Over 90 Days Outstanding	6.9%	1.7 - 8.3%
Total	100.0%	100.0 - 100.0%

HIGH PROFIT PLUMBING SUPPLIES & EQUIPMENT FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	73.7%	72.4 - 77.3%
Gross Margin	26.3%	22.7 - 27.6%
Operating Expenses:		
Selling Expenses	5.5%	4.6 - 6.9%
Delivery Expenses	1.7%	1.2 - 2.2%
Warehouse Expenses	2.9%	1.9 - 3.5%
General & Administrative Expenses	9.4%	6.0 - 10.6%
Occupancy Expenses	1.7%	1.0 - 2.4%
Other Operating Expenses	0.3%	0.0 - 0.2%
Total Operating Expenses	21.5%	18.6 - 23.5%
Net Operating Profit	4.9%	3.3 - 5.4%
Non-Operating Income	1.9%	1.0 - 2.9%
Non-Operating Expenses	1.2%	0.5 - 1.4%
Net Profit Before Tax	5.6%	4.2 - 6.8%
Net Profit After Tax	3.8%	2.8 - 4.8%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	21.5%	18.6 - 23.5%
Total Operating Expense to Gross Margin	81.8%	79.5 - 86.6%
Non-People Expense to Net Sales	7.5%	6.0 - 8.9%
Non-People Expense to Gross Margin	28.3%	22.3 - 31.3%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.6%	0.2 - 0.8%
Times Interest Earned	8.4X	6.0 - 31.3X
BALANCE SHEET		
Cash	8.2%	0.4 - 11.9%
Accounts & Notes Receivable, Trade(Net)	32.6%	28.1 - 36.5%
Inventory	44.4%	39.4 - 50.0%
Other Current Assets	1.3%	0.4 - 1.7%
Total Current Assets	86.5%	83.8 - 92.3%
All Other Assets	13.5%	7.7 - 16.2%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	32.1%	20.1 - 43.8%
Total Long-Term Liabilities	7.0%	0.0 - 11.6%
Total Liabilities	39.1%	26.6 - 54.8%
Total Net Worth	60.9%	45.2 - 73.4%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

Industrial PVF Firms

INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	11.8%	5.1 - 23.2%
Total Assets to Net Worth	2.1X	1.6 - 3.1X
Net Profit After Tax to Total Assets	5.4%	2.7 - 9.6%
Net Sales to Total Assets	3.2X	2.5 - 3.7X
Net Profit After Tax to Net Sales	2.0%	0.8 - 3.0%
Net Profit Before Tax to Net Worth	15.7%	7.5 - 31.4%
Net Profit Before Tax to Total Assets	7.3%	3.5 - 13.3%
EBIT to Total Assets	9.3%	5.5 - 13.3%
SALES ANALYSIS		
Net Sales($000)	$7,047	$4,661 - 14,881
Percent Sales Change from Prior Year	12.1%	5.2 - 18.1%
Sales Mix:		
Direct Sales	12.8%	3.9 - 18.1%
Warehouse Sales - Counter and Delivery	87.2%	81.9 - 96.1%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	3.3%	0.0 - 1.0%
Heating & Cooling Supplies & Equipment	0.1%	0.0 - 0.0%
Industrial P-V-F (Pipes-Valves-Fittings)	87.0%	80.0 - 100.0%
Other Industrial Supplies & Equipment	4.6%	0.0 - 5.0%
Other Products	5.0%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	26.7%	21.8 - 28.4%
Gross Margin on Direct Shipments	15.2%	10.5 - 22.8%
Gross Margin on Warehouse Sales	27.7%	25.8 - 30.7%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.68X	2.88 - 4.19X
Total Debt to Net Worth	106.6%	59.7 - 210.8%
Current Debt to Net Worth	85.5%	45.1 - 134.4%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.39X	1.77 - 3.48X
Current Assets Minus Inventory/Curr Debt	1.07X	0.90 - 1.45X
Net Sales to Working Capital	5.7X	3.8 - 9.4X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	3.4%	1.3 - 4.4%
Net Profit Before Tax plus Depreciation to Total Assets	9.2%	4.1 - 12.3%
Working Capital to Total Assets	45.8%	35.0 - 61.5%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	4.0	3.3 - 5.0
Average Invoice Size	$316	$254 - 617
Average Billing Line	$64.94	$54.40 - 119.26

INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$243,792	$211,870 - 307,285
Gross Margin Per Employee	$62,955	$54,609 - 69,236
Average Compensation Per Employee	$29,739	$27,333 - 32,232
Average Fringe Benefits Per Employee	$5,729	$4,183 - 7,362
Compensation & Fringes Per Employee	$35,531	$31,254 - 39,156
Payroll to Net Sales	12.1%	10.2 - 14.8%
Fringe Benefits to Net Sales	2.5%	1.8 - 2.9%
Payroll & Fringes to Net Sales	14.5%	12.8 - 18.5%
Payroll to Gross Margin	46.8%	41.8 - 52.1%
Fringe Benefits to Gross Margin	8.8%	8.0 - 10.3%
Payroll & Fringes to Gross Margin	55.2%	51.5 - 63.1%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	4.35X	3.35 - 5.28X
% of Whse Sales from Non-Stock Items	30.0%	17.5 - 42.5%
Cost of In-Stock Whse Sales/Ave Inventory	2.91X	2.40 - 3.42X
No. of Days Average Inventory Carried	84 Days	69 - 109 Days
Total Cost of Goods Sold to Ave Inventory	5.00X	3.75 - 6.36X
Whse Gross Margin Return on Ave Inventory	146%	127 - 205%
Turn & Earn Profitability Index	111%	91 - 148%
Percent of Firms on LIFO	56.3%	
ACCOUNTS RECEIVABLE		
Average Collection Period	42 Days	36 - 49 Days
Gross Margin Return on Receivables	225%	163 - 308%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	68.4%	60.1 - 77.9%
31-60 Days Outstanding	19.6%	15.5 - 24.4%
61-90 Days Outstanding	6.6%	4.2 - 8.9%
Over 90 Days Outstanding	5.4%	1.9 - 7.1%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,073	$926 - 2,760
31-60 Days Outstanding	$1,229	$708 - 3,319
61-90 Days Outstanding	$1,395	$789 - 4,109
Over 90 Days Outstanding	$868	$464 - 1,456
Total	$1,101	$840 - 3,113
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	65.3%	55.0 - 71.8%
31-60 Days Outstanding	19.0%	18.4 - 23.4%
61-90 Days Outstanding	6.2%	4.1 - 7.7%
Over 90 Days Outstanding	9.4%	3.6 - 10.7%
Total	100.0%	100.0 - 100.0%

INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	73.3%	71.6 - 78.2%
Gross Margin	26.7%	21.8 - 28.4%
Operating Expenses:		
Selling Expenses	7.5%	5.7 - 9.8%
Delivery Expenses	1.9%	1.0 - 2.7%
Warehouse Expenses	3.0%	2.0 - 3.8%
General & Administrative Expenses	8.9%	6.3 - 10.3%
Occupancy Expenses	1.9%	0.9 - 2.2%
Other Operating Expenses	0.2%	0.0 - 0.0%
Total Operating Expenses	23.4%	19.2 - 26.7%
Net Operating Profit	3.3%	1.9 - 4.7%
Non-Operating Income	1.1%	0.3 - 1.5%
Non-Operating Expenses	1.5%	1.0 - 1.9%
Net Profit Before Tax	2.9%	1.0 - 4.2%
Net Profit After Tax	2.0%	0.8 - 3.0%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	23.4%	19.2 - 26.7%
Total Operating Expense to Gross Margin	87.5%	82.0 - 93.0%
Non-People Expense to Net Sales	8.1%	6.1 - 9.0%
Non-People Expense to Gross Margin	29.8%	26.0 - 33.9%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.0%	0.4 - 1.3%
Times Interest Earned	4.2X	1.8 - 7.7X
BALANCE SHEET		
Cash	3.8%	0.3 - 6.4%
Accounts & Notes Receivable, Trade(Net)	34.5%	26.5 - 42.6%
Inventory	45.4%	37.5 - 53.4%
Other Current Assets	2.8%	0.5 - 2.4%
Total Current Assets	86.5%	80.3 - 93.0%
All Other Assets	13.5%	7.0 - 19.7%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	38.0%	26.3 - 47.3%
Total Long-Term Liabilities	13.4%	1.8 - 19.2%
Total Liabilities	51.4%	37.4 - 67.8%
Total Net Worth	48.6%	32.2 - 62.6%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

INDUSTRIAL P-V-F FIRMS -- SALES UNDER $5,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	4.7%	-1.4 - 40.5%
Total Assets to Net Worth	2.6X	2.0 - 3.7X
Net Profit After Tax to Total Assets	2.8%	-1.3 - 7.4%
Net Sales to Total Assets	3.2X	2.1 - 3.7X
Net Profit After Tax to Net Sales	1.1%	-0.5 - 2.7%
Net Profit Before Tax to Net Worth	5.9%	-1.6 - 47.6%
Net Profit Before Tax to Total Assets	4.1%	-1.4 - 9.8%
EBIT to Total Assets	4.4%	0.1 - 11.1%
SALES ANALYSIS		
Net Sales($000)	$3,136	$1,703 - 3,932
Percent Sales Change from Prior Year	5.1%	1.3 - 18.1%
Sales Mix:		
Direct Sales	6.6%	4.7 - 8.5%
Warehouse Sales - Counter and Delivery	93.4%	91.5 - 95.3%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	0.9%	0.0 - 0.0%
Heating & Cooling Supplies & Equipment	0.0%	0.0 - 0.0%
Industrial P-V-F (Pipes-Valves-Fittings)	92.7%	85.0 - 100.0%
Other Industrial Supplies & Equipment	5.9%	0.0 - 7.5%
Other Products	0.5%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	32.6%	26.7 - 37.4%
Gross Margin on Direct Shipments	24.0%	
Gross Margin on Warehouse Sales	35.3%	
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.31X	2.99 - 4.08X
Total Debt to Net Worth	164.5%	95.4 - 269.9%
Current Debt to Net Worth	101.1%	54.3 - 190.7%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	3.07X	1.81 - 4.26X
Current Assets Minus Inventory/Curr Debt	1.30X	0.93 - 2.07X
Net Sales to Working Capital	4.1X	
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.4%	
Net Profit Before Tax plus Depreciation to Total Assets	6.8%	
Working Capital to Total Assets	35.4%	
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice		INSUFFICIENT DATA
Average Invoice Size		INSUFFICIENT DATA
Average Billing Line		INSUFFICIENT DATA

INDUSTRIAL P-V-F FIRMS -- SALES UNDER $5,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$203,406	$161,613 - 218,025
Gross Margin Per Employee	$56,776	$54,609 - 68,401
Average Compensation Per Employee	$28,612	$26,332 - 30,969
Average Fringe Benefits Per Employee	$5,776	$4,836 - 7,102
Compensation & Fringes Per Employee	$33,609	$31,671 - 36,194
Payroll to Net Sales	16.4%	12.3 - 19.9%
Fringe Benefits to Net Sales	3.2%	2.8 - 3.7%
Payroll & Fringes to Net Sales	19.2%	18.5 - 19.9%
Payroll to Gross Margin	44.8%	41.5 - 55.1%
Fringe Benefits to Gross Margin	8.9%	8.4 - 11.0%
Payroll & Fringes to Gross Margin	58.4%	52.0 - 64.8%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	4.84X	
% of Whse Sales from Non-Stock Items	20.0%	
Cost of In-Stock Whse Sales/Ave Inventory	INSUFFICIENT DATA	
No. of Days Average Inventory Carried	82 Days	
Total Cost of Goods Sold to Ave Inventory	3.79X	3.39 - 7.13X
Whse Gross Margin Return on Ave Inventory	252%	
Turn & Earn Profitability Index	156%	
Percent of Firms on LIFO	50.0%	
ACCOUNTS RECEIVABLE		
Average Collection Period	41 Days	31 - 46 Days
Gross Margin Return on Receivables	263%	209 - 405%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	70.0%	64.0 - 77.5%
31-60 Days Outstanding	19.0%	13.8 - 21.9%
61-90 Days Outstanding	6.7%	4.7 - 9.3%
Over 90 Days Outstanding	4.3%	0.8 - 4.0%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$916	
31-60 Days Outstanding	INSUFFICIENT DATA	
61-90 Days Outstanding	$859	
Over 90 Days Outstanding	$465	
Total	$827	
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	71.9%	
31-60 Days Outstanding	17.5%	
61-90 Days Outstanding	4.5%	
Over 90 Days Outstanding	6.0%	
Total	100.0%	

INDUSTRIAL P-V-F FIRMS -- SALES UNDER $5,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	67.4%	62.6 - 73.3%
Gross Margin	32.6%	26.7 - 37.4%
Operating Expenses:		
Selling Expenses	8.7%	6.3 - 10.2%
Delivery Expenses	2.7%	1.5 - 3.4%
Warehouse Expenses	3.9%	2.6 - 4.9%
General & Administrative Expenses	11.4%	9.0 - 13.5%
Occupancy Expenses	3.1%	2.0 - 3.0%
Other Operating Expenses	0.4%	0.0 - 0.0%
Total Operating Expenses	30.1%	26.5 - 32.7%
Net Operating Profit	2.6%	1.2 - 4.4%
Non-Operating Income	0.6%	0.0 - 1.0%
Non-Operating Expenses	1.8%	1.1 - 2.6%
Net Profit Before Tax	1.4%	0.0 - 2.7%
Net Profit After Tax	1.1%	-0.5 - 2.7%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	30.1%	26.5 - 32.7%
Total Operating Expense to Gross Margin	92.1%	89.1 - 95.8%
Non-People Expense to Net Sales	11.3%	8.3 - 11.3%
Non-People Expense to Gross Margin	33.3%	28.5 - 37.1%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.1%	0.6 - 1.6%
Times Interest Earned	1.9X	0.1 - 4.4X
BALANCE SHEET		
Cash	4.2%	0.6 - 7.7%
Accounts & Notes Receivable, Trade(Net)	30.4%	19.4 - 40.8%
Inventory	43.1%	34.1 - 50.1%
Other Current Assets	6.6%	1.1 - 3.7%
Total Current Assets	84.2%	76.3 - 88.7%
All Other Assets	15.8%	11.3 - 23.7%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	36.6%	19.6 - 48.5%
Total Long-Term Liabilities	21.7%	5.3 - 32.4%
Total Liabilities	58.3%	48.7 - 72.9%
Total Net Worth	41.7%	27.1 - 51.3%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

INDUSTRIAL P-V-F FIRMS -- SALES $5,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	9.4%	7.5 - 17.2%
Total Assets to Net Worth	1.7X	1.5 - 2.5X
Net Profit After Tax to Total Assets	4.7%	4.2 - 7.2%
Net Sales to Total Assets	3.3X	2.7 - 3.7X
Net Profit After Tax to Net Sales	1.9%	1.2 - 2.5%
Net Profit Before Tax to Net Worth	15.7%	8.3 - 29.9%
Net Profit Before Tax to Total Assets	7.4%	5.4 - 11.9%
EBIT to Total Assets	9.7%	7.2 - 13.0%
SALES ANALYSIS		
Net Sales($000)	$6,534	$5,720 - 8,086
Percent Sales Change from Prior Year	10.5%	7.2 - 15.5%
Sales Mix:		
Direct Sales	12.2%	2.7 - 13.5%
Warehouse Sales - Counter and Delivery	87.8%	86.5 - 97.3%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	5.9%	0.0 - 5.0%
Heating & Cooling Supplies & Equipment	0.4%	0.0 - 0.0%
Industrial P-V-F (Pipes-Valves-Fittings)	81.6%	65.0 - 95.0%
Other Industrial Supplies & Equipment	4.5%	0.0 - 3.0%
Other Products	7.6%	0.0 - 9.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	24.5%	22.8 - 26.4%
Gross Margin on Direct Shipments	17.7%	8.9 - 26.2%
Gross Margin on Warehouse Sales	26.3%	24.6 - 27.1%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.78X	2.80 - 4.31X
Total Debt to Net Worth	67.0%	53.6 - 151.8%
Current Debt to Net Worth	62.7%	44.5 - 134.1%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.52X	1.78 - 2.74X
Current Assets Minus Inventory/Curr Debt	1.25X	0.86 - 1.55X
Net Sales to Working Capital	5.7X	4.3 - 8.7X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	3.1%	2.1 - 4.4%
Net Profit Before Tax plus Depreciation to Total Assets	9.0%	6.4 - 11.7%
Working Capital to Total Assets	51.7%	35.8 - 63.0%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	4.1 - 7.5
Average Invoice Size	$319	$283 - 640
Average Billing Line	$67.33	$55.36 - 74.27

INDUSTRIAL P-V-F FIRMS -- SALES $5,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$265,252	$236,469 - 291,254
Gross Margin Per Employee	$63,296	$53,431 - 66,844
Average Compensation Per Employee	$30,087	$26,806 - 33,165
Average Fringe Benefits Per Employee	$5,623	$4,183 - 7,632
Compensation & Fringes Per Employee	$37,104	$30,672 - 40,659
Payroll to Net Sales	12.0%	11.0 - 13.1%
Fringe Benefits to Net Sales	2.4%	2.0 - 2.8%
Payroll & Fringes to Net Sales	14.4%	13.2 - 16.3%
Payroll to Gross Margin	49.6%	46.4 - 52.8%
Fringe Benefits to Gross Margin	8.9%	8.0 - 11.5%
Payroll & Fringes to Gross Margin	61.3%	54.9 - 63.6%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	4.63X	3.77 - 5.37X
% of Whse Sales from Non-Stock Items	37.5%	30.4 - 43.8%
Cost of In-Stock Whse Sales/Ave Inventory	3.03X	2.82 - 3.38X
No. of Days Average Inventory Carried	79 Days	68 - 97 Days
Total Cost of Goods Sold to Ave Inventory	5.47X	4.63 - 6.73X
Whse Gross Margin Return on Ave Inventory	146%	137 - 172%
Turn & Earn Profitability Index	113%	107 - 131%
Percent of Firms on LIFO	54.6%	
ACCOUNTS RECEIVABLE		
Average Collection Period	42 Days	36 - 59 Days
Gross Margin Return on Receivables	210%	148 - 271%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	71.8%	66.9 - 77.7%
31-60 Days Outstanding	18.5%	14.0 - 24.2%
61-90 Days Outstanding	5.8%	4.1 - 7.7%
Over 90 Days Outstanding	4.0%	2.4 - 5.5%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,785	
31-60 Days Outstanding	$2,018	
61-90 Days Outstanding	$1,919	
Over 90 Days Outstanding	$1,076	
Total	$1,766	$954 - 3,412
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	62.1%	
31-60 Days Outstanding	18.7%	
61-90 Days Outstanding	7.1%	
Over 90 Days Outstanding	12.1%	
Total	100.0%	

INDUSTRIAL P-V-F FIRMS -- SALES $5,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.5%	73.6 - 77.2%
Gross Margin	24.5%	22.8 - 26.4%
Operating Expenses:		
Selling Expenses	7.5%	6.2 - 9.5%
Delivery Expenses	2.1%	1.6 - 2.9%
Warehouse Expenses	2.6%	2.1 - 3.1%
General & Administrative Expenses	8.2%	6.2 - 9.9%
Occupancy Expenses	1.6%	0.9 - 2.1%
Other Operating Expenses	0.3%	0.0 - 0.0%
Total Operating Expenses	22.2%	20.0 - 23.9%
Net Operating Profit	2.3%	1.8 - 3.0%
Non-Operating Income	1.3%	0.3 - 1.8%
Non-Operating Expenses	1.2%	0.7 - 1.7%
Net Profit Before Tax	2.4%	1.7 - 3.6%
Net Profit After Tax	1.9%	1.2 - 2.5%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.2%	20.0 - 23.9%
Total Operating Expense to Gross Margin	90.7%	87.6 - 94.4%
Non-People Expense to Net Sales	7.4%	6.4 - 8.6%
Non-People Expense to Gross Margin	30.3%	27.6 - 32.9%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.7%	0.2 - 1.1%
Times Interest Earned	5.1X	2.3 - 10.2X
BALANCE SHEET		
Cash	3.6%	0.0 - 2.5%
Accounts & Notes Receivable, Trade(Net)	37.6%	28.5 - 45.2%
Inventory	43.3%	34.3 - 55.6%
Other Current Assets	1.9%	0.4 - 2.4%
Total Current Assets	86.3%	81.3 - 92.9%
All Other Assets	13.7%	7.1 - 18.7%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	34.6%	29.0 - 46.2%
Total Long-Term Liabilities	11.5%	1.9 - 22.2%
Total Liabilities	46.0%	34.9 - 60.3%
Total Net Worth	54.0%	39.7 - 65.1%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

INDUSTRIAL P-V-F FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	16.5%	11.4 - 21 5%
Total Assets to Net Worth	2.0X	1.7 - 2.3X
Net Profit After Tax to Total Assets	6.5%	5.2 - 11.9%
Net Sales to Total Assets	3.1X	2.6 - 3.5X
Net Profit After Tax to Net Sales	2.8%	1.8 - 4.5%
Net Profit Before Tax to Net Worth	20.7%	14.4 - 30.3%
Net Profit Before Tax to Total Assets	9.8%	5.8 - 18.1%
EBIT to Total Assets	11.3%	8.1 - 16.4%
SALES ANALYSIS		
Net Sales($000)	$23,893	$17,150 - 39,573
Percent Sales Change from Prior Year	14.7%	10.2 - 22.2%
Sales Mix:		
Direct Sales	17.6%	5.7 - 25.2%
Warehouse Sales - Counter and Delivery	82.4%	74.8 - 94.3%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	2.7%	0.0 - 0.0%
Heating & Cooling Supplies & Equipment	0.0%	0.0 - 0.0%
Industrial P-V-F (Pipes-Valves-Fittings)	87.6%	85.0 - 100.0%
Other Industrial Supplies & Equipment	3.3%	0.0 - 3.0%
Other Products	6.4%	0.0 - 2.5%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	24.4%	18.9 - 28.0%
Gross Margin on Direct Shipments	13.1%	
Gross Margin on Warehouse Sales	27.8%	25.0 - 30.9%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.61X	2.97 - 3.85X
Total Debt to Net Worth	100.8%	69.3 - 133.2%
Current Debt to Net Worth	85.0%	49.0 - 110.8%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.12X	1.78 - 2.89X
Current Assets Minus Inventory/Curr Debt	1.01X	0.89 - 1.12X
Net Sales to Working Capital	7.4X	3.7 - 9.7X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	4.5%	1.3 - 7.3%
Net Profit Before Tax plus Depreciation to Total Assets	11.1%	4.9 - 15.5%
Working Capital to Total Assets	46.4%	35.6 - 62.9%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	3.7	2.8 - 3.9
Average Invoice Size	$416	$297 - 642
Average Billing Line	$140.99	$58.45 - 299.54

INDUSTRIAL P-V-F FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$292,776	$236,465 - 363,948
Gross Margin Per Employee	$67,236	$61,910 - 72,893
Average Compensation Per Employee	$29,768	$28,891 - 31,853
Average Fringe Benefits Per Employee	$5,605	$4,545 - 7,242
Compensation & Fringes Per Employee	$36,304	$33,087 - 38,603
Payroll to Net Sales	11.0%	8.0 - 12.3%
Fringe Benefits to Net Sales	2.3%	1.7 - 2.5%
Payroll & Fringes to Net Sales	13.1%	9.3 - 14.3%
Payroll to Gross Margin	43.5%	40.9 - 50.2%
Fringe Benefits to Gross Margin	8.6%	7.8 - 9.7%
Payroll & Fringes to Gross Margin	52.6%	49.1 - 55.5%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.57X	3.12 - 4.47X
% of Whse Sales from Non-Stock Items	26.0%	8.8 - 33.2%
Cost of In-Stock Whse Sales/Ave Inventory	2.39X	2.18 - 2.98X
No. of Days Average Inventory Carried	102 Days	82 - 117 Days
Total Cost of Goods Sold to Ave Inventory	4.93X	4.25 - 5.53X
Whse Gross Margin Return on Ave Inventory	123%	102 - 145%
Turn & Earn Profitability Index	88%	78 - 114%
Percent of Firms on LIFO	63.6%	
ACCOUNTS RECEIVABLE		
Average Collection Period	40 Days	39 - 48 Days
Gross Margin Return on Receivables	225%	157 - 269%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	63.1%	56.2 - 74.4%
31-60 Days Outstanding	21.5%	18.6 - 24.4%
61-90 Days Outstanding	7.3%	3.7 - 8.9%
Over 90 Days Outstanding	8.2%	4.2 - 10.3%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)		INSUFFICIENT DATA
31-60 Days Outstanding		INSUFFICIENT DATA
61-90 Days Outstanding		INSUFFICIENT DATA
Over 90 Days Outstanding		INSUFFICIENT DATA
Total	$1,369	
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)		INSUFFICIENT DATA
31-60 Days Outstanding		INSUFFICIENT DATA
61-90 Days Outstanding		INSUFFICIENT DATA
Over 90 Days Outstanding		INSUFFICIENT DATA
Total		INSUFFICIENT DATA

INDUSTRIAL P-V-F FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.6%	72.0 - 81.1%
Gross Margin	24.4%	18.9 - 28.0%
Operating Expenses:		
Selling Expenses	6.6%	4.1 - 8.7%
Delivery Expenses	1.1%	0.5 - 1.8%
Warehouse Expenses	2.8%	1.6 - 2.4%
General & Administrative Expenses	7.8%	5.9 - 9.9%
Occupancy Expenses	1.3%	0.8 - 1.6%
Other Operating Expenses	-0.0%	0.0 - 0.0%
Total Operating Expenses	19.6%	14.6 - 21.5%
Net Operating Profit	4.8%	2.3 - 7.1%
Non-Operating Income	1.2%	0.4 - 1.5%
Non-Operating Expenses	1.6%	1.1 - 1.8%
Net Profit Before Tax	4.4%	1.9 - 6.9%
Net Profit After Tax	2.8%	1.8 - 4.5%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	19.6%	14.6 - 21.5%
Total Operating Expense to Gross Margin	80.7%	72.0 - 86.2%
Non-People Expense to Net Sales	6.6%	4.9 - 7.2%
Non-People Expense to Gross Margin	26.6%	20.6 - 32.6%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.0%	0.6 - 1.1%
Times Interest Earned	4.9X	2.3 - 7.7X
BALANCE SHEET		
Cash	3.8%	1.0 - 6.4%
Accounts & Notes Receivable, Trade(Net)	34.9%	29.2 - 42.3%
Inventory	49.7%	44.9 - 53.2%
Other Current Assets	0.3%	0.4 - 1.0%
Total Current Assets	88.8%	84.9 - 94.8%
All Other Assets	11.2%	5.3 - 15.1%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	42.9%	30.7 - 49.6%
Total Long-Term Liabilities	7.9%	1.8 - 11.5%
Total Liabilities	50.8%	40.9 - 57.1%
Total Net Worth	49.2%	42.9 - 59.2%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

HIGH PROFIT INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	36.7%	22.2 - 42.7%
Total Assets to Net Worth	2.1X	1.7 - 2.3X
Net Profit After Tax to Total Assets	16.1%	11.2 - 20.7%
Net Sales to Total Assets	3.3X	2.9 - 3.9X
Net Profit After Tax to Net Sales	4.7%	3.8 - 5.4%
Net Profit Before Tax to Net Worth	42.7%	34.0 - 52.4%
Net Profit Before Tax to Total Assets	20.7%	16.5 - 28.1%
EBIT to Total Assets	19.9%	
SALES ANALYSIS		
Net Sales($000)	$13,399	$4,609 - 27,165
Percent Sales Change from Prior Year	14.7%	6.6 - 19.6%
Sales Mix:		
Direct Sales	14.6%	9.0 - 15.0%
Warehouse Sales - Counter and Delivery	85.5%	85.0 - 91.0%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	3.3%	0.0 - 0.0%
Heating & Cooling Supplies & Equipment	0.0%	0.0 - 0.0%
Industrial P-V-F (Pipes-Valves-Fittings)	83.9%	80.0 - 100.0%
Other Industrial Supplies & Equipment	4.0%	0.0 - 6.0%
Other Products	8.8%	0.0 - 9.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	28.7%	24.2 - 28.7%
Gross Margin on Direct Shipments		INSUFFICIENT DATA
Gross Margin on Warehouse Sales		INSUFFICIENT DATA
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.72X	3.26 - 4.63X
Total Debt to Net Worth	106.2%	72.9 - 132.0%
Current Debt to Net Worth	90.7%	50.2 - 124.4%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.28X	1.66 - 3.07X
Current Assets Minus Inventory/Curr Debt	1.27X	0.57 - 1.33X
Net Sales to Working Capital		INSUFFICIENT DATA
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")		INSUFFICIENT DATA
Net Profit Before Tax plus Depreciation to Total Assets		INSUFFICIENT DATA
Working Capital to Total Assets		INSUFFICIENT DATA
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice		INSUFFICIENT DATA
Average Invoice Size	$305	
Average Billing Line		INSUFFICIENT DATA

HIGH PROFIT INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$253,535	$233,080 - 308,118
Gross Margin Per Employee	$68,818	$66,366 - 78,907
Average Compensation Per Employee	$28,714	$27,380 - 30,184
Average Fringe Benefits Per Employee	$5,408	$4,697 - 5,861
Compensation & Fringes Per Employee	$34,653	$32,250 - 36,299
Payroll to Net Sales	11.2%	8.7 - 12.3%
Fringe Benefits to Net Sales	1.9%	1.7 - 2.4%
Payroll & Fringes to Net Sales	13.1%	9.8 - 14.8%
Payroll to Gross Margin	40.5%	39.2 - 41.8%
Fringe Benefits to Gross Margin	8.1%	7.5 - 8.5%
Payroll & Fringes to Gross Margin	48.7%	46.8 - 49.9%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.46X	
% of Whse Sales from Non-Stock Items	20.5%	
Cost of In-Stock Whse Sales/Ave Inventory	2.85X	
No. of Days Average Inventory Carried	105 Days	
Total Cost of Goods Sold to Ave Inventory	5.22X	3.62 - 5.73X
Whse Gross Margin Return on Ave Inventory	172%	
Turn & Earn Profitability Index	INSUFFICIENT DATA	
Percent of Firms on LIFO	62.5%	
ACCOUNTS RECEIVABLE		
Average Collection Period	40 Days	23 - 45 Days
Gross Margin Return on Receivables	269%	213 - 387%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	67.8%	57.8 - 78.8%
31-60 Days Outstanding	20.9%	15.9 - 26.9%
61-90 Days Outstanding	5.6%	3.9 - 7.9%
Over 90 Days Outstanding	5.6%	2.5 - 7.5%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	INSUFFICIENT DATA	
31-60 Days Outstanding	INSUFFICIENT DATA	
61-90 Days Outstanding	INSUFFICIENT DATA	
Over 90 Days Outstanding	INSUFFICIENT DATA	
Total	INSUFFICIENT DATA	
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	INSUFFICIENT DATA	
31-60 Days Outstanding	INSUFFICIENT DATA	
61-90 Days Outstanding	INSUFFICIENT DATA	
Over 90 Days Outstanding	INSUFFICIENT DATA	
Total	INSUFFICIENT DATA	

HIGH PROFIT INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	71.3%	71.3 - 75.8%
Gross Margin	28.7%	24.2 - 28.7%
Operating Expenses:		
Selling Expenses	6.8%	5.3 - 8.8%
Delivery Expenses	2.2%	1.0 - 2.4%
Warehouse Expenses	2.9%	2.1 - 3.7%
General & Administrative Expenses	8.0%	5.2 - 8.1%
Occupancy Expenses	2.1%	0.8 - 1.9%
Other Operating Expenses	0.4%	0.0 - 0.0%
Total Operating Expenses	22.4%	18.6 - 20.8%
Net Operating Profit	6.3%	4.9 - 8.0%
Non-Operating Income	0.9%	0.3 - 1.4%
Non-Operating Expenses	1.0%	0.6 - 1.5%
Net Profit Before Tax	6.1%	4.5 - 7.5%
Net Profit After Tax	4.7%	3.8 - 5.4%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.4%	18.6 - 20.8%
Total Operating Expense to Gross Margin	76.4%	70.3 - 80.8%
Non-People Expense to Net Sales	8.5%	5.3 - 8.1%
Non-People Expense to Gross Margin	28.1%	20.4 - 35.6%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.9%	
Times Interest Earned	7.7X	
BALANCE SHEET		
Cash	4.3%	0.5 - 6.9%
Accounts & Notes Receivable, Trade(Net)	31.6%	27.2 - 37.8%
Inventory	51.7%	45.7 - 59.4%
Other Current Assets	1.3%	0.5 - 1.8%
Total Current Assets	89.0%	86.3 - 96.2%
All Other Assets	11.0%	3.8 - 13.7%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	40.8%	28.6 - 54.4%
Total Long-Term Liabilities	10.2%	1.0 - 16.0%
Total Liabilities	51.0%	42.2 - 56.9%
Total Net Worth	49.0%	43.1 - 57.8%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

Plumbing Supplies & Equipment
and
Industrial PVF Firms

PLUMBING SUPPLIES & EQUIPMENT & INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	6.6%	4.3 - 14.6%
Total Assets to Net Worth	2.0X	1.4 - 3.4X
Net Profit After Tax to Total Assets	2.8%	1.5 - 6.4%
Net Sales to Total Assets	2.7X	2.4 - 2.9X
Net Profit After Tax to Net Sales	1.2%	0.5 - 2.7%
Net Profit Before Tax to Net Worth	10.3%	5.2 - 17.3%
Net Profit Before Tax to Total Assets	4.8%	1.7 - 9.7%
EBIT to Total Assets	7.5%	5.6 - 10.8%
SALES ANALYSIS		
Net Sales($000)	$11,878	$5,927 - 27,323
Percent Sales Change from Prior Year	4.1%	-0.6 - 11.1%
Sales Mix:		
Direct Sales	11.6%	5.0 - 16.3%
Warehouse Sales - Counter and Delivery	88.4%	83.7 - 95.0%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	47.3%	37.0 - 50.0%
Heating & Cooling Supplies & Equipment	16.6%	0.5 - 27.8%
Industrial P-V-F (Pipes-Valves-Fittings)	25.1%	11.0 - 34.8%
Other Industrial Supplies & Equipment	5.5%	0.0 - 10.0%
Other Products	5.5%	0.0 - 4.8%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	24.3%	21.2 - 28.2%
Gross Margin on Direct Shipments	12.1%	10.0 - 14.3%
Gross Margin on Warehouse Sales	25.6%	22.2 - 29.4%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.10X	2.65 - 3.64X
Total Debt to Net Worth	108.0%	40.7 - 241.6%
Current Debt to Net Worth	60.3%	35.8 - 222.2%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.68X	1.54 - 3.77X
Current Assets Minus Inventory/Curr Debt	1.12X	0.74 - 1.68X
Net Sales to Working Capital	4.4X	3.5 - 8.7X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.7%	1.0 - 3.5%
Net Profit Before Tax plus Depreciation to Total Assets	6.8%	2.5 - 9.6%
Working Capital to Total Assets	45.4%	29.0 - 65.3%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	3.9 - 6.5
Average Invoice Size	$196	$158 - 271
Average Billing Line	$31.79	$27.50 - 50.07

PLUMBING SUPPLIES & EQUIPMENT & INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$223,668	$198,390 - 265,617
Gross Margin Per Employee	$56,415	$51,369 - 62,493
Average Compensation Per Employee	$26,465	$25,065 - 30,176
Average Fringe Benefits Per Employee	$5,380	$4,400 - 6,602
Compensation & Fringes Per Employee	$32,965	$30,295 - 36,831
Payroll to Net Sales	12.5%	10.4 - 14.4%
Fringe Benefits to Net Sales	2.5%	1.9 - 2.9%
Payroll & Fringes to Net Sales	15.2%	11.9 - 17.4%
Payroll to Gross Margin	49.6%	46.3 - 52.6%
Fringe Benefits to Gross Margin	9.8%	8.4 - 12.4%
Payroll & Fringes to Gross Margin	59.8%	54.2 - 62.5%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.92X	3.26 - 5.17X
% of Whse Sales from Non-Stock Items	20.0%	9.2 - 30.0%
Cost of In-Stock Whse Sales/Ave Inventory	3.21X	2.47 - 4.06X
No. of Days Average Inventory Carried	93 Days	71 - 112 Days
Total Cost of Goods Sold to Ave Inventory	4.69X	3.66 - 5.87X
Whse Gross Margin Return on Ave Inventory	140%	112 - 203%
Turn & Earn Profitability Index	101%	92 - 138%
Percent of Firms on LIFO	%50.0%	
ACCOUNTS RECEIVABLE		
Average Collection Period	54 Days	45 - 63 Days
Gross Margin Return on Receivables	162%	130 - 198%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	57.2%	50.1 - 64.5%
31-60 Days Outstanding	19.9%	17.5 - 23.8%
61-90 Days Outstanding	8.6%	6.3 - 11.0%
Over 90 Days Outstanding	14.2%	7.2 - 18.8%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,394	$943 - 2,346
31-60 Days Outstanding	$1,644	$935 - 3,162
61-90 Days Outstanding	$2,000	$852 - 2,778
Over 90 Days Outstanding	$2,017	$1,381 - 3,604
Total	$1,586	$933 - 3,019
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	64.0%	53.6 - 73.8%
31-60 Days Outstanding	17.5%	10.2 - 23.8%
61-90 Days Outstanding	8.6%	5.1 - 12.4%
Over 90 Days Outstanding	10.0%	6.7 - 13.5%
Total	100.0%	100.0 - 100.0%

PLUMBING SUPPLIES & EQUIPMENT & INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.7%	71.8 - 78.8%
Gross Margin	24.3%	21.2 - 28.2%
Operating Expenses:		
Selling Expenses	6.2%	5.2 - 7.6%
Delivery Expenses	2.0%	1.4 - 2.4%
Warehouse Expenses	2.9%	2.0 - 3.7%
General & Administrative Expenses	8.3%	6.7 - 10.6%
Occupancy Expenses	2.2%	1.3 - 2.7%
Other Operating Expenses	0.6%	0.0 - 0.6%
Total Operating Expenses	22.2%	19.6 - 24.4%
Net Operating Profit	2.1%	1.0 - 3.2%
Non-Operating Income	2.0%	1.5 - 2.7%
Non-Operating Expenses	1.9%	1.3 - 2.5%
Net Profit Before Tax	2.2%	0.7 - 3.0%
Net Profit After Tax	1.2%	0.5 - 2.7%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.2%	19.6 - 24.4%
Total Operating Expense to Gross Margin	91.4%	86.4 - 96.2%
Non-People Expense to Net Sales	8.0%	6.4 - 9.3%
Non-People Expense to Gross Margin	33.1%	27.5 - 37.2%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.0%	0.4 - 1.7%
Times Interest Earned	2.2X	1.5 - 9.6X
BALANCE SHEET		
Cash	4.3%	0.4 - 4.3%
Accounts & Notes Receivable, Trade(Net)	35.3%	28.8 - 42.0%
Inventory	43.4%	33.2 - 50.9%
Other Current Assets	2.3%	0.5 - 3.0%
Total Current Assets	85.3%	80.2 - 92.5%
All Other Assets	14.7%	7.5 - 19.8%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	40.2%	24.1 - 56.7%
Total Long-Term Liabilities	11.7%	1.5 - 18.7%
Total Liabilities	51.9%	29.3 - 71.7%
Total Net Worth	48.1%	28.3 - 70.7%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES UNDER $5,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	6.6%	5.1 - 8.4%
Total Assets to Net Worth	2.4X	1.4 - 6.5X
Net Profit After Tax to Total Assets	2.7%	0.8 - 5.1%
Net Sales to Total Assets	2.8X	1.9 - 3.1X
Net Profit After Tax to Net Sales	0.7%	0.5 - 2.2%
Net Profit Before Tax to Net Worth	9.4%	5.1 - 12.2%
Net Profit Before Tax to Total Assets	3.7%	1.1 - 7.0%
EBIT to Total Assets	8.7%	
SALES ANALYSIS		
Net Sales($000)	$4,507	$3,249 - 4,720
Percent Sales Change from Prior Year	2.2%	
Sales Mix:		
Direct Sales	8.0%	
Warehouse Sales - Courier and Delivery	92.0%	
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	53.7%	48.0 - 50.0%
Heating & Cooling Supplies & Equipment	16.9%	10.0 - 25.0%
Industrial P-V-F (Pipes-Valves-Fittings)	19.8%	10.0 - 30.0%
Other Industrial Supplies & Equipment	5.7%	0.0 - 10.0%
Other Products	4.0%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales		INSUFFICIENT DATA
Gross Margin on Direct Shipments		INSUFFICIENT DATA
Gross Margin on Warehouse Sales		INSUFFICIENT DATA
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.08X	2.10 - 3.64X
Total Debt to Net Worth	142.0%	35.1 - 550.1%
Current Debt to Net Worth	85.2%	25.2 - 460.4%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.77X	1.72 - 4.60X
Current Assets Minus Inventory/Curr Debt	0.97X	0.86 - 1.32X
Net Sales to Working Capital		INSUFFICIENT DATA
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")		INSUFFICIENT DATA
Net Profit Before Tax plus Depreciation to Total Assets		INSUFFICIENT DATA
Working Capital to Total Assets		INSUFFICIENT DATA
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice		INSUFFICIENT DATA
Average Invoice Size	$172	
Average Billing Line		INSUFFICIENT DATA

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES UNDER $5,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$178,549	
Gross Margin Per Employee	$56,950	
Average Compensation Per Employee	$26,330	
Average Fringe Benefits Per Employee	$5,003	
Compensation & Fringes Per Employee	$31,008	
Payroll to Net Sales	14.2%	
Fringe Benefits to Net Sales	2.7%	
Payroll & Fringes to Net Sales	17.5%	
Payroll to Gross Margin	49.5%	
Fringe Benefits to Gross Margin	10.4%	
Payroll & Fringes to Gross Margin	57.3%	
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	2.64X	
% of Whse Sales from Non-Stock Items	INSUFFICIENT DATA	
Cost of In-Stock Whse Sales/Ave Inventory	INSUFFICIENT DATA	
No. of Days Average Inventory Carried	139 Days	
Total Cost of Goods Sold to Ave Inventory	3.43X	2.66 - 4.86X
Whse Gross Margin Return on Ave Inventory	118%	
Turn & Earn Profitability Index	INSUFFICIENT DATA	
Percent of Firms on LIFO	50.0%	
ACCOUNTS RECEIVABLE		
Average Collection Period	40 Days	
Gross Margin Return on Receivables	INSUFFICIENT DATA	
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	65.5%	
31-60 Days Outstanding	16.2%	
61-90 Days Outstanding	5.0%	
Over 90 Days Outstanding	13.3%	
Total	100.0%	
Average Account Balance:		
Current (0-30 Days Outstanding)	INSUFFICIENT DATA	
31-60 Days Outstanding	INSUFFICIENT DATA	
61-90 Days Outstanding	INSUFFICIENT DATA	
Over 90 Days Outstanding	INSUFFICIENT DATA	
Total	INSUFFICIENT DATA	
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	INSUFFICIENT DATA	
31-60 Days Outstanding	INSUFFICIENT DATA	
61-90 Days Outstanding	INSUFFICIENT DATA	
Over 90 Days Outstanding	INSUFFICIENT DATA	
Total	INSUFFICIENT DATA	

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES UNDER $5,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	INSUFFICIENT DATA	
Cost of Goods Sold	INSUFFICIENT DATA	
Gross Margin	INSUFFICIENT DATA	
Operating Expenses:		
Selling Expenses	INSUFFICIENT DATA	
Delivery Expenses	INSUFFICIENT DATA	
Warehouse Expenses	INSUFFICIENT DATA	
General & Administrative Expenses	INSUFFICIENT DATA	
Occupancy Expenses	INSUFFICIENT DATA	
Other Operating Expenses	INSUFFICIENT DATA	
Total Operating Expenses	INSUFFICIENT DATA	
Net Operating Profit	INSUFFICIENT DATA	
Non-Operating Income	INSUFFICIENT DATA	
Non-Operating Expenses	INSUFFICIENT DATA	
Net Profit Before Tax	INSUFFICIENT DATA	
Net Profit After Tax	0.7%	0.5 - 2.2%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	INSUFFICIENT DATA	
Total Operating Expense to Gross Margin	INSUFFICIENT DATA	
Non-People Expense to Net Sales	INSUFFICIENT DATA	
Non-People Expense to Gross Margin	INSUFFICIENT DATA	
INTEREST EXPENSE		
Interest Expense to Net Sales	1.0%	
Times Interest Earned	2.1X	
BALANCE SHEET		
Cash	5.8%	0.7 - 9.5%
Accounts & Notes Receivable, Trade(Net)	31.6%	21.2 - 34.6%
Inventory	46.0%	36.4 - 58.5%
Other Current Assets	3.5%	2.0 - 5.1%
Total Current Assets	86.9%	85.6 - 89.9%
All Other Assets	13.1%	10.1 - 14.4%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	38.1%	18.6 - 48.2%
Total Long-Term Liabilities	13.1%	1.2 - 12.2%
Total Liabilities	51.2%	26.0 - 84.6%
Total Net Worth	48.8%	15.4 - 74.0%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES $5,000,000 TO $9,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	12.5%	2.9 - 15.8%
Total Assets to Net Worth	1.5X	1.4 - 2.3X
Net Profit After Tax to Total Assets	3.9%	0.7 - 10.6%
Net Sales to Total Assets	2.8X	2.7 - 3.0X
Net Profit After Tax to Net Sales	1.2%	0.3 - 4.0%
Net Profit Before Tax to Net Worth	14.7%	3.6 - 17.0%
Net Profit Before Tax to Total Assets	5.8%	0.9 - 12.7%
EBIT to Total Assets	5.9%	4.4 - 11.2%
SALES ANALYSIS		
Net Sales($000)	$7,500	$6,133 - 7,739
Percent Sales Change from Prior Year	0.7%	0.0 - 4.4%
Sales Mix:		
Direct Sales	9.0%	4.2 - 13.6%
Warehouse Sales - Counter and Delivery	91.0%	86.4 - 95.8%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	41.4%	35.5 - 48.0%
Heating & Cooling Supplies & Equipment	18.2%	12.0 - 26.0%
Industrial P-V-F (Pipes-Valves-Fittings)	24.4%	16.5 - 30.0%
Other Industrial Supplies & Equipment	10.9%	0.0 - 16.0%
Other Products	5.2%	0.0 - 10.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	26.6%	24.4 - 30.0%
Gross Margin on Direct Shipments	13.1%	
Gross Margin on Warehouse Sales	27.5%	25.4 - 30.4%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.47X	2.95 - 3.70X
Total Debt to Net Worth	44.9%	35.5 - 131.6%
Current Debt to Net Worth	44.9%	22.7 - 58.5%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	3.09X	1.90 - 4.31X
Current Assets Minus Inventory/Curr Debt	1.42X	0.81 - 2.03X
Net Sales to Working Capital	4.3X	3.9 - 5.7X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.6%	0.8 - 4.0%
Net Profit Before Tax plus Depreciation to Total Assets	7.5%	2.2 - 12.9%
Working Capital to Total Assets	50.6%	43.8 - 64.9%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.5	4.9 - 7.5
Average Invoice Size	$166	$135 - 203
Average Billing Line	$27.70	$27.06 - 28.08

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES $5,000,000 TO $9,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$198,678	$178,240 - 222,943
Gross Margin Per Employee	$55,426	$49,729 - 58,990
Average Compensation Per Employee	$25,606	$24,201 - 26,078
Average Fringe Benefits Per Employee	$5,032	$4,569 - 6,660
Compensation & Fringes Per Employee	$30,862	$30,310 - 33,422
Payroll to Net Sales	12.8%	11.9 - 14.5%
Fringe Benefits to Net Sales	2.6%	2.5 - 2.9%
Payroll & Fringes to Net Sales	15.9%	14.8 - 17.0%
Payroll to Gross Margin	51.5%	43.0 - 54.0%
Fringe Benefits to Gross Margin	11.0%	9.0 - 12.8%
Payroll & Fringes to Gross Margin	60.5%	53.9 - 64.5%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	4.26X	3.86 - 4.72X
% of Whse Sales from Non-Stock Items	21.4%	9.5 - 23.5%
Cost of In-Stock Whse Sales/Ave Inventory	3.54X	2.76 - 3.82X
No. of Days Average Inventory Carried	86 Days	78 - 95 Days
Total Cost of Goods Sold to Ave Inventory	4.92X	4.48 - 5.75X
Whse Gross Margin Return on Ave Inventory	154%	134 - 207%
Turn & Earn Profitability Index	110%	100 - 144%
Percent of Firms on LIFO	33.3%	
ACCOUNTS RECEIVABLE		
Average Collection Period	52 Days	43 - 57 Days
Gross Margin Return on Receivables	207%	148 - 213%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	55.4%	48.6 - 62.5%
31-60 Days Outstanding	18.0%	16.5 - 20.2%
61-90 Days Outstanding	8.9%	7.3 - 9.7%
Over 90 Days Outstanding	17.7%	9.2 - 22.9%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$943	$755 - 969
31-60 Days Outstanding	$897	$875 - 2,671
61-90 Days Outstanding	$852	$590 - 3,014
Over 90 Days Outstanding	$1,939	$1,053 - 5,696
Total	$933	$899 - 1,239
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	68.3%	59.1 - 74.0%
31-60 Days Outstanding	16.5%	10.9 - 21.9%
61-90 Days Outstanding	8.5%	5.3 - 11.6%
Over 90 Days Outstanding	6.7%	5.2 - 7.8%
Total	100.0%	100.0 - 100.0%

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES $5,000,000 TO $9,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	73.4%	70.0 - 75.6%
Gross Margin	26.6%	24.4 - 30.0%
Operating Expenses:		
Selling Expenses	8.0%	6.6 - 9.5%
Delivery Expenses	2.0%	1.5 - 2.4%
Warehouse Expenses	2.8%	1.5 - 4.1%
General & Administrative Expenses	9.4%	8.2 - 10.9%
Occupancy Expenses	2.3%	1.7 - 3.1%
Other Operating Expenses	0.6%	0.0 - 1.0%
Total Operating Expenses	25.1%	23.7 - 25.7%
Net Operating Profit	1.6%	0.1 - 2.3%
Non-Operating Income	2.3%	1.6 - 2.7%
Non-Operating Expenses	1.8%	0.8 - 2.4%
Net Profit Before Tax	2.0%	0.2 - 3.3%
Net Profit After Tax	1.2%	0.3 - 4.0%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	25.1%	23.7 - 25.7%
Total Operating Expense to Gross Margin	94.6%	91.6 - 99.6%
Non-People Expense to Net Sales	9.2%	8.1 - 9.9%
Non-People Expense to Gross Margin	34.7%	28.7 - 38.2%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.4%	0.2 - 1.2%
Times Interest Earned	7.3X	1.4 - 34.9X
BALANCE SHEET		
Cash	6.5%	0.5 - 7.0%
Accounts & Notes Receivable, Trade(Net)	35.6%	30.3 - 42.3%
Inventory	42.4%	43.7 - 50.7%
Other Current Assets	1.3%	0.7 - 2.1%
Total Current Assets	85.7%	80.5 - 93.9%
All Other Assets	14.3%	6.1 - 19.5%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	36.3%	20.2 - 48.4%
Total Long-Term Liabilities	10.7%	0.0 - 23.1%
Total Liabilities	47.0%	27.1 - 60.5%
Total Net Worth	53.0%	39.5 - 72.9%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES OVER $9,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	6.0%	4.9 - 13.8%
Total Assets to Net Worth	2.1X	1.6 - 3.5X
Net Profit After Tax to Total Assets	2.9%	1.9 - 4.8%
Net Sales to Total Assets	2.5X	2.4 - 2.9X
Net Profit After Tax to Net Sales	1.4%	0.7 - 2.0%
Net Profit Before Tax to Net Worth	10.2%	6.2 - 18.9%
Net Profit Before Tax to Total Assets	4.9%	2.4 - 7.7%
EBIT to Total Assets	7.7%	5.7 - 10.2%
SALES ANALYSIS		
Net Sales($000)	$26,750	$16,935 - 38,066
Percent Sales Change from Prior Year	7.8%	-0.5 - 15.2%
Sales Mix:		
Direct Sales	13.5%	7.7 - 17.2%
Warehouse Sales - Counter and Delivery	86.5%	82.8 - 92.3%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	48.1%	35.0 - 60.0%
Heating & Cooling Supplies & Equipment	16.3%	0.0 - 28.0%
Industrial P-V-F (Pipes-Valves-Fittings)	29.0%	10.0 - 40.0%
Other Industrial Supplies & Equipment	2.4%	0.0 - 2.0%
Other Products	4.2%	0.0 - 4.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	22.9%	19.6 - 25.6%
Gross Margin on Direct Shipments	11.3%	10.1 - 13.9%
Gross Margin on Warehouse Sales	23.3%	21.2 - 27.8%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.97X	2.66 - 3.40X
Total Debt to Net Worth	116.6%	59.1 - 247.4%
Current Debt to Net Worth	84.8%	38.4 - 225.9%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	1.87X	1.43 - 3.47X
Current Assets Minus Inventory/Curr Debt	1.22X	0.72 - 1.51X
Net Sales to Working Capital	7.0X	3.7 - 11.3X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.2%	1.4 - 3.3%
Net Profit Before Tax plus Depreciation to Total Assets	5.8%	4.1 - 8.9%
Working Capital to Total Assets	41.1%	24.6 - 60.8%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	4.4 - 5.8
Average Invoice Size	$205	$176 - 299
Average Billing Line	$45.01	$28.30 - 57.05

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES OVER $9,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$249,034	$223,450 - 283,106
Gross Margin Per Employee	$56,770	$53,775 - 65,882
Average Compensation Per Employee	$27,440	$26,014 - 34,118
Average Fringe Benefits Per Employee	$5,808	$4,236 - 6,582
Compensation & Fringes Per Employee	$33,248	$30,703 - 38,963
Payroll to Net Sales	11.7%	10.2 - 13.3%
Fringe Benefits to Net Sales	2.1%	1.6 - 2.8%
Payroll & Fringes to Net Sales	13.7%	11.7 - 16.1%
Payroll to Gross Margin	49.1%	46.7 - 51.8%
Fringe Benefits to Gross Margin	9.5%	6.9 - 11.4%
Payroll & Fringes to Gross Margin	59.5%	55.6 - 62.1%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.71X	3.29 - 5.41X
% of Whse Sales from Non-Stock Items	20.5%	9.2 - 30.8%
Cost of In-Stock Whse Sales/Ave Inventory	3.21X	2.38 - 4.17X
No. of Days Average Inventory Carried	98 Days	67 - 111 Days
Total Cost of Goods Sold to Ave Inventory	4.14X	3.67 - 5.83X
Whse Gross Margin Return on Ave Inventory	135%	108 - 170%
Turn & Earn Profitability Index	101%	89 - 135%
Percent of Firms on LIFO	57.1%	
ACCOUNTS RECEIVABLE		
Average Collection Period	56 Days	52 - 64 Days
Gross Margin Return on Receivables	158%	127 - 171%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	56.0%	50.7 - 63.9%
31-60 Days Outstanding	21.6%	20.3 - 24.4%
61-90 Days Outstanding	9.3%	7.2 - 11.6%
Over 90 Days Outstanding	13.2%	7.5 - 17.2%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$2,023	$1,413 - 3,093
31-60 Days Outstanding	$2,832	$1,585 - 3,151
61-90 Days Outstanding	$2,348	$1,590 - 2,903
Over 90 Days Outstanding	$3,068	$2,133 - 3,871
Total	$1,976	$1,631 - 3,093
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	59.2%	50.0 - 66.5%
31-60 Days Outstanding	19.5%	15.9 - 24.8%
61-90 Days Outstanding	9.3%	5.5 - 13.1%
Over 90 Days Outstanding	12.0%	8.9 - 15.3%
Total	100.0%	100.0 - 100.0%

PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS -- SALES OVER $9,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	77.1%	74.4 - 80.4%
Gross Margin	22.9%	19.6 - 25.6%
Operating Expenses:		
Selling Expenses	5.7%	4.8 - 6.9%
Delivery Expenses	1.9%	1.3 - 2.4%
Warehouse Expenses	3.0%	2.1 - 3.5%
General & Administrative Expenses	7.7%	5.7 - 9.6%
Occupancy Expenses	2.1%	1.3 - 2.3%
Other Operating Expenses	0.6%	0.0 - 0.0%
Total Operating Expenses	20.9%	18.4 - 23.8%
Net Operating Profit	2.1%	1.1 - 3.1%
Non-Operating Income	2.1%	1.5 - 2.9%
Non-Operating Expenses	2.1%	1.5 - 2.6%
Net Profit Before Tax	2.0%	0.9 - 2.7%
Net Profit After Tax	1.4%	0.7 - 2.0%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	20.9%	18.4 - 23.8%
Total Operating Expense to Gross Margin	91.0%	85.5 - 94.6%
Non-People Expense to Net Sales	7.5%	6.2 - 8.6%
Non-People Expense to Gross Margin	33.0%	26.8 - 36.4%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.4%	0.5 - 1.8%
Times Interest Earned	2.2X	1.6 - 6.7X
BALANCE SHEET		
Cash	2.5%	0.3 - 2.2%
Accounts & Notes Receivable, Trade(Net)	36.8%	30.3 - 41.2%
Inventory	42.8%	32.6 - 49.9%
Other Current Assets	2.2%	0.4 - 2.7%
Total Current Assets	84.3%	79.4 - 91.7%
All Other Assets	15.7%	8.3 - 20.6%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	43.0%	26.3 - 60.0%
Total Long-Term Liabilities	11.6%	2.8 - 14.5%
Total Liabilities	54.5%	37.2 - 71.2%
Total Net Worth	45.5%	28.8 - 62.9%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

HIGH PROFIT PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	14.4%	10.1 - 18.2%
Total Assets to Net Worth	1.4X	1.3 - 1.4X
Net Profit After Tax to Total Assets	11.0%	7.4 - 13.1%
Net Sales to Total Assets	2.4X	1.8 - 2.6X
Net Profit After Tax to Net Sales	4.9%	4.1 - 5.3%
Net Profit Before Tax to Net Worth	18.8%	16.3 - 23.6%
Net Profit Before Tax to Total Assets	13.7%	11.8 - 15.8%
EBIT to Total Assets	15.0%	13.3 - 18.2%
SALES ANALYSIS		
Net Sales($000)	$10,819	$7,658 - 15,938
Percent Sales Change from Prior Year	6.0%	-1.6 - 11.1%
Sales Mix:		
Direct Sales	9.6%	3.8 - 15.5%
Warehouse Sales - Counter and Delivery	90.4%	84.5 - 96.3%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	47.6%	35.0 - 50.0%
Heating & Cooling Supplies & Equipment	18.9%	5.0 - 28.0%
Industrial P-V-F (Pipes-Valves-Fittings)	27.1%	15.0 - 35.0%
Other Industrial Supplies & Equipment	3.4%	0.0 - 3.0%
Other Products	3.0%	0.0 - 0.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	26.8%	25.4 - 29.4%
Gross Margin on Direct Shipments		INSUFFICIENT DATA
Gross Margin on Warehouse Sales		INSUFFICIENT DATA
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.70X	2.25 - 2.93X
Total Debt to Net Worth	35.6%	22.7 - 38.7%
Current Debt to Net Worth	33.1%	18.9 - 38.7%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	3.77X	3.37 - 5.27X
Current Assets Minus Inventory/Curr Debt	2.29X	1.54 - 3.22X
Net Sales to Working Capital		INSUFFICIENT DATA
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")		INSUFFICIENT DATA
Net Profit Before Tax plus Depreciation to Total Assets		INSUFFICIENT DATA
Working Capital to Total Assets		INSUFFICIENT DATA
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.0	
Average Invoice Size	$214	
Average Billing Line	$28.41	

HIGH PROFIT PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$208,085	$193,600 - 220,967
Gross Margin Per Employee	$57,525	$55,033 - 62,498
Average Compensation Per Employee	$26,727	$24,969 - 31,676
Average Fringe Benefits Per Employee	$4,720	$4,075 - 5,839
Compensation & Fringes Per Employee	$31,779	$29,763 - 37,023
Payroll to Net Sales	13.2%	12.9 - 14.2%
Fringe Benefits to Net Sales	2.5%	2.3 - 2.8%
Payroll & Fringes to Net Sales	16.1%	15.5 - 17.5%
Payroll to Gross Margin	47.8%	44.9 - 50.6%
Fringe Benefits to Gross Margin	9.1%	8.2 - 10.0%
Payroll & Fringes to Gross Margin	58.6%	54.1 - 59.8%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.48X	2.94 - 4.26X
% of Whse Sales from Non-Stock Items	20.0%	13.0 - 28.9%
Cost of In-Stock Whse Sales/Ave Inventory	2.49X	2.22 - 3.52X
No. of Days Average Inventory Carried	105 Days	86 - 126 Days
Total Cost of Goods Sold to Ave Inventory	4.14X	3.79 - 5.08X
Whse Gross Margin Return on Ave Inventory	154%	116 - 175%
Turn & Earn Profitability Index	INSUFFICIENT DATA	
Percent of Firms on LIFO	62.5%	
ACCOUNTS RECEIVABLE		
Average Collection Period	59 Days	49 - 65 Days
Gross Margin Return on Receivables	148%	
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	49.7%	
31-60 Days Outstanding	23.5%	
61-90 Days Outstanding	9.4%	
Over 90 Days Outstanding	17.4%	
Total	100.0%	
Average Account Balance:		
Current (0-30 Days Outstanding)	INSUFFICIENT DATA	
31-60 Days Outstanding	INSUFFICIENT DATA	
61-90 Days Outstanding	INSUFFICIENT DATA	
Over 90 Days Outstanding	INSUFFICIENT DATA	
Total	INSUFFICIENT DATA	
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	INSUFFICIENT DATA	
31-60 Days Outstanding	INSUFFICIENT DATA	
61-90 Days Outstanding	INSUFFICIENT DATA	
Over 90 Days Outstanding	INSUFFICIENT DATA	
Total	INSUFFICIENT DATA	

HIGH PROFIT PLUMBING SUPPLIES & INDUSTRIAL P-V-F FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	73.2%	70.6 - 74.6%
Gross Margin	26.8%	25.4 - 29.4%
Operating Expenses:		
Selling Expenses	7.1%	6.2 - 8.1%
Delivery Expenses	1.9%	1.4 - 2.6%
Warehouse Expenses	3.4%	2.7 - 4.2%
General & Administrative Expenses	7.7%	7.2 - 8.4%
Occupancy Expenses	1.8%	0.8 - 2.8%
Other Operating Expenses	0.4%	0.0 - 0.4%
Total Operating Expenses	22.3%	21.3 - 23.7%
Net Operating Profit	4.6%	3.2 - 5.8%
Non-Operating Income	2.6%	2.1 - 3.2%
Non-Operating Expenses	1.0%	0.6 - 1.4%
Net Profit Before Tax	6.1%	5.0 - 7.3%
Net Profit After Tax	4.9%	4.1 - 5.3%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.3%	21.3 - 23.7%
Total Operating Expense to Gross Margin	83.3%	80.4 - 86.7%
Non-People Expense to Net Sales	7.1%	
Non-People Expense to Gross Margin	25.8%	
INTEREST EXPENSE		
Interest Expense to Net Sales	0.4%	0.2 - 0.5%
Times Interest Earned	18.7X	12.9 - 41.5X
BALANCE SHEET		
Cash	14.0%	6.7 - 19.7%
Accounts & Notes Receivable, Trade(Net)	31.0%	28.9 - 38.1%
Inventory	39.5%	32.6 - 47.9%
Other Current Assets	2.4%	0.6 - 3.5%
Total Current Assets	86.8%	83.8 - 93.8%
All Other Assets	13.2%	6.2 - 16.2%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	21.3%	15.9 - 27.9%
Total Long-Term Liabilities	5.5%	0.0 - 2.4%
Total Liabilities	26.8%	18.5 - 27.9%
Total Net Worth	73.2%	72.1 - 81.5%
Total Liabilities & Net Worth	99.9%	100.0 - 100.0%

HVAC & Other Emphasis Firms

HVAC & OTHER EMPHASIS FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	7.2%	3.9 - 11.2%
Total Assets to Net Worth	1.8X	1.5 - 2.4X
Net Profit After Tax to Total Assets	3.8%	1.7 - 6.7%
Net Sales to Total Assets	2.5X	2.2 - 2.9X
Net Profit After Tax to Net Sales	1.3%	0.7 - 2.8%
Net Profit Before Tax to Net Worth	10.4%	6.1 - 16.3%
Net Profit Before Tax to Total Assets	5.4%	2.3 - 9.2%
EBIT to Total Assets	7.2%	4.8 - 11.9%
SALES ANALYSIS		
Net Sales($000)	$15,486	$6,449 - 33,048
Percent Sales Change from Prior Year	5.1%	-5.0 - 10.1%
Sales Mix:		
Direct Sales	9.4%	3.3 - 14.7%
Warehouse Sales - Counter and Delivery	90.6%	85.3 - 96.7%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	33.4%	27.8 - 40.8%
Heating & Cooling Supplies & Equipment	32.7%	15.0 - 50.0%
Industrial P-V-F (Pipes-Valves-Fittings)	6.6%	0.0 - 10.0%
Other Industrial Supplies & Equipment	4.9%	0.0 - 7.3%
Other Products	22.4%	0.0 - 45.5%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	24.5%	22.1 - 27.6%
Gross Margin on Direct Shipments	12.4%	11.0 - 16.5%
Gross Margin on Warehouse Sales	24.9%	22.6 - 27.9%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.95X	2.72 - 3.22X
Total Debt to Net Worth	74.7%	48.0 - 143.8%
Current Debt to Net Worth	55.5%	33.8 - 108.5%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.68X	1.98 - 3.67X
Current Assets Minus Inventory/Curr Debt	1.00X	0.81 - 1.44X
Net Sales to Working Capital	4.2X	3.8 - 5.7X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.8%	1.3 - 4.9%
Net Profit Before Tax plus Depreciation to Total Assets	6.3%	3.0 - 11.0%
Working Capital to Total Assets	51.3%	50.2 - 59.6%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	4.5	3.7 - 5.5
Average Invoice Size	$192	$150 - 281
Average Billing Line	$40.35	$33.60 - 61.96

HVAC & OTHER EMPHASIS FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$218,502	$194,342 - 258,582
Gross Margin Per Employee	$52,529	$45,490 - 60,179
Average Compensation Per Employee	$25,600	$22,761 - 30,199
Average Fringe Benefits Per Employee	$4,744	$3,406 - 6,406
Compensation & Fringes Per Employee	$29,996	$26,094 - 36,705
Payroll to Net Sales	12.3%	9.8 - 13.9%
Fringe Benefits to Net Sales	2.1%	1.5 - 2.9%
Payroll & Fringes to Net Sales	14.1%	11.6 - 16.8%
Payroll to Gross Margin	50.3%	43.7 - 54.2%
Fringe Benefits to Gross Margin	8.7%	7.1 - 11.5%
Payroll & Fringes to Gross Margin	59.6%	54.6 - 63.0%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.37X	2.97 - 4.02X
% of Whse Sales from Non-Stock Items	10.0%	3.0 - 15.0%
Cost of In-Stock Whse Sales/Ave Inventory	2.96X	2.44 - 3.73X
No. of Days Average Inventory Carried	109 Days	91 - 123 Days
Total Cost of Goods Sold to Ave Inventory	3.95X	3.16 - 4.74X
Whse Gross Margin Return on Ave Inventory	118%	92 - 138%
Turn & Earn Profitability Index	86%	71 - 105%
Percent of Firms on LIFO	65.8%	
ACCOUNTS RECEIVABLE		
Average Collection Period	44 Days	40 - 49 Days
Gross Margin Return on Receivables	202%	172 - 236%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	71.0%	60.5 - 84.4%
31-60 Days Outstanding	14.4%	7.0 - 19.1%
61-90 Days Outstanding	6.0%	2.5 - 9.1%
Over 90 Days Outstanding	8.6%	4.5 - 11.4%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,378	$918 - 2,231
31-60 Days Outstanding	$1,204	$938 - 2,280
61-90 Days Outstanding	$1,162	$998 - 2,172
Over 90 Days Outstanding	$1,769	$1,155 - 2,650
Total	$1,442	$977 - 2,257
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	72.6%	69.0 - 77.8%
31-60 Days Outstanding	14.9%	11.2 - 17.2%
61-90 Days Outstanding	5.7%	4.0 - 7.6%
Over 90 Days Outstanding	6.8%	2.2 - 9.5%
Total	100.0%	100.0 - 100.0%

HVAC & OTHER EMPHASIS FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	75.5%	72.5 - 77.9%
Gross Margin	24.5%	22.1 - 27.6%
Operating Expenses:		
Selling Expenses	7.1%	5.5 - 8.5%
Delivery Expenses	1.7%	1.1 - 2.0%
Warehouse Expenses	2.5%	1.9 - 3.1%
General & Administrative Expenses	8.6%	6.9 - 10.8%
Occupancy Expenses	1.9%	1.2 - 2.4%
Other Operating Expenses	0.7%	0.0 - 0.1%
Total Operating Expenses	22.5%	20.0 - 25.2%
Net Operating Profit	2.0%	0.6 - 3.3%
Non-Operating Income	2.1%	1.4 - 2.7%
Non-Operating Expenses	1.9%	1.3 - 2.5%
Net Profit Before Tax	2.2%	0.7 - 3.5%
Net Profit After Tax	1.3%	0.7 - 2.8%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	22.5%	20.0 - 25.2%
Total Operating Expense to Gross Margin	92.4%	87.2 - 97.4%
Non-People Expense to Net Sales	7.8%	6.2 - 9.5%
Non-People Expense to Gross Margin	32.4%	27.6 - 37.3%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.8%	0.4 - 1.4%
Times Interest Earned	3.3X	1.6 - 9.8X
BALANCE SHEET		
Cash	5.3%	0.7 - 5.7%
Accounts & Notes Receivable, Trade(Net)	28.7%	23.0 - 32.6%
Inventory	49.8%	43.3 - 56.2%
Other Current Assets	1.2%	0.2 - 1.4%
Total Current Assets	85.0%	80.0 - 91.0%
All Other Assets	15.0%	9.0 - 20.0%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	34.3%	22.4 - 42.9%
Total Long-Term Liabilities	12.7%	3.1 - 13.4%
Total Liabilities	46.9%	32.6 - 60.8%
Total Net Worth	53.1%	39.2 - 67.4%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

HVAC & OTHER FIRMS -- SALES UNDER $6,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	8.9%	6.5 - 10.4%
Total Assets to Net Worth	1.6X	1.4 - 3.0X
Net Profit After Tax to Total Assets	4.1%	3.0 - 5.6%
Net Sales to Total Assets	2.5X	2.2 - 2.9X
Net Profit After Tax to Net Sales	1.7%	1.0 - 2.3%
Net Profit Before Tax to Net Worth	11.6%	8.0 - 14.8%
Net Profit Before Tax to Total Assets	5.5%	4.2 - 6.6%
EBIT to Total Assets	6.0%	3.1 - 7.0%
SALES ANALYSIS		
Net Sales($000)	$3,844	$2,698 - 4,389
Percent Sales Change from Prior Year	-3.9%	-8.1 - 6.6%
Sales Mix:		
Direct Sales	6.8%	
Warehouse Sales - Counter and Delivery	93.2%	
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	35.3%	35.0 - 40.0%
Heating & Cooling Supplies & Equipment	47.9%	40.0 - 50.0%
Industrial P-V-F (Pipes-Valves-Fittings)	4.2%	0.0 - 10.0%
Other Industrial Supplies & Equipment	1.1%	0.0 - 0.0%
Other Products	11.4%	0.0 - 20.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	23.9%	19.9 - 28.5%
Gross Margin on Direct Shipments	INSUFFICIENT DATA	
Gross Margin on Warehouse Sales	INSUFFICIENT DATA	
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.66X	2.45 - 3.16X
Total Debt to Net Worth	62.9%	42.0 - 200.2%
Current Debt to Net Worth	48.3%	35.5 - 125.5%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.80X	2.22 - 3.34X
Current Assets Minus Inventory/Curr Debt	0.90X	0.82 - 1.47X
Net Sales to Working Capital	INSUFFICIENT DATA	
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	INSUFFICIENT DATA	
Net Profit Before Tax plus Depreciation to Total Assets	INSUFFICIENT DATA	
Working Capital to Total Assets	INSUFFICIENT DATA	
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	4.0	
Average Invoice Size	$221	
Average Billing Line	$40.13	

HVAC & OTHER FIRMS -- SALES UNDER $6,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$191,701	$189,451 - 211,737
Gross Margin Per Employee	$53,292	$44,810 - 57,642
Average Compensation Per Employee	$26,881	$23,288 - 29,187
Average Fringe Benefits Per Employee	$5,347	$3,276 - 6,367
Compensation & Fringes Per Employee	$33,171	$26,549 - 35,083
Payroll to Net Sales	11.7%	9.4 - 14.3%
Fringe Benefits to Net Sales	2.5%	1.7 - 3.1%
Payroll & Fringes to Net Sales	15.2%	12.3 - 17.3%
Payroll to Gross Margin	50.1%	46.0 - 51.7%
Fringe Benefits to Gross Margin	10.2%	8.2 - 11.8%
Payroll & Fringes to Gross Margin	60.7%	57.0 - 62.8%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.84X	
% of Whse Sales from Non-Stock Items	10.0%	
Cost of In-Stock Whse Sales/Ave Inventory	INSUFFICIENT DATA	
No. of Days Average Inventory Carried	95 Days	
Total Cost of Goods Sold to Ave Inventory	3.46X	3.03 - 4.61X
Whse Gross Margin Return on Ave Inventory	118%	
Turn & Earn Profitability Index	INSUFFICIENT DATA	
Percent of Firms on LIFO	71.4%	
ACCOUNTS RECEIVABLE		
Average Collection Period	44 Days	39 - 49 Days
Gross Margin Return on Receivables	181%	
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	81.8%	70.4 - 92.3%
31-60 Days Outstanding	8.4%	4.4 - 11.6%
61-90 Days Outstanding	2.5%	1.1 - 3.2%
Over 90 Days Outstanding	7.3%	1.2 - 13.3%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	INSUFFICIENT DATA	
31-60 Days Outstanding	INSUFFICIENT DATA	
61-90 Days Outstanding	INSUFFICIENT DATA	
Over 90 Days Outstanding	INSUFFICIENT DATA	
Total	INSUFFICIENT DATA	
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	INSUFFICIENT DATA	
31-60 Days Outstanding	INSUFFICIENT DATA	
61-90 Days Outstanding	INSUFFICIENT DATA	
Over 90 Days Outstanding	INSUFFICIENT DATA	
Total	INSUFFICIENT DATA	

HVAC & OTHER FIRMS -- SALES UNDER $6,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	76.1%	71.5 - 80.1%
Gross Margin	23.9%	19.9 - 28.5%
Operating Expenses:		
Selling Expenses	5.6%	5.1 - 7.1%
Delivery Expenses	2.0%	1.5 - 2.2%
Warehouse Expenses	2.4%	1.6 - 2.9%
General & Administrative Expenses	9.0%	8.1 - 11.6%
Occupancy Expenses	1.8%	1.2 - 2.3%
Other Operating Expenses	2.4%	0.0 - 0.5%
Total Operating Expenses	23.2%	21.4 - 26.2%
Net Operating Profit	0.7%	0.3 - 1.5%
Non-Operating Income	2.1%	1.2 - 2.7%
Non-Operating Expenses	2.2%	1.7 - 2.8%
Net Profit Before Tax	0.6%	-0.3 - 2.8%
Net Profit After Tax	1.7%	1.0 - 2.3%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	23.2%	21.4 - 26.2%
Total Operating Expense to Gross Margin	98.1%	93.7 - 98.6%
Non-People Expense to Net Sales	8.6%	7.7 - 9.8%
Non-People Expense to Gross Margin	36.6%	30.6 - 41.7%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.7%	0.3 - 1.6%
Times Interest Earned	3.6X	
BALANCE SHEET		
Cash	10.8%	2.1 - 7.4%
Accounts & Notes Receivable, Trade(Net)	27.0%	22.1 - 29.9%
Inventory	50.6%	42.9 - 61.5%
Other Current Assets	0.9%	0.1 - 0.8%
Total Current Assets	89.2%	87.9 - 93.8%
All Other Assets	10.8%	6.2 - 12.1%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	34.8%	26.0 - 40.1%
Total Long-Term Liabilities	15.0%	2.3 - 14.8%
Total Liabilities	49.8%	30.0 - 69.3%
Total Net Worth	50.2%	30.7 - 70.0%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

HVAC & OTHER FIRMS -- SALES $6,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	9.5%	5.2 - 12.3%
Total Assets to Net Worth	1.8X	1.5 - 1.9X
Net Profit After Tax to Total Assets	6.7%	2.9 - 6.9%
Net Sales to Total Assets	2.3X	2.3 - 2.9X
Net Profit After Tax to Net Sales	1.7%	1.3 - 3.2%
Net Profit Before Tax to Net Worth	13.2%	6.4 - 17.5%
Net Profit Before Tax to Total Assets	8.5%	3.6 - 11.0%
EBIT to Total Assets	10.2%	5.5 - 12.6%
SALES ANALYSIS		
Net Sales($000)	$7,551	$6,616 - 9,115
Percent Sales Change from Prior Year	1.9%	1.2 - 12.3%
Sales Mix:		
Direct Sales	4.5%	
Warehouse Sales - Counter and Delivery	95.5%	
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	25.3%	
Heating & Cooling Supplies & Equipment	13.2%	
Industrial P-V-F (Pipes-Valves-Fittings)	18.2%	
Other Industrial Supplies & Equipment	17.3%	
Other Products	26.0%	
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	26.1%	23.3 - 28.6%
Gross Margin on Direct Shipments	INSUFFICIENT DATA	
Gross Margin on Warehouse Sales	27.9%	
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.00X	2.72 - 3.64X
Total Debt to Net Worth	76.7%	47.0 - 92.7%
Current Debt to Net Worth	40.0%	31.2 - 74.0%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	3.57X	2.32 - 3.88X
Current Assets Minus Inventory/Curr Debt	0.86X	0.83 - 1.32X
Net Sales to Working Capital	3.8X	
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	INSUFFICIENT DATA	
Net Profit Before Tax plus Depreciation to Total Assets	INSUFFICIENT DATA	
Working Capital to Total Assets	56.1%	
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	4.7	
Average Invoice Size	$151	$115 - 184
Average Billing Line	$32.08	

HVAC & OTHER FIRMS -- SALES $6,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$198,424	$151,029 - 224,525
Gross Margin Per Employee	$45,398	$43,923 - 55,745
Average Compensation Per Employee	$25,591	$22,875 - 30,451
Average Fringe Benefits Per Employee	$4,114	$3,948 - 7,224
Compensation & Fringes Per Employee	$29,705	$26,040 - 40,359
Payroll to Net Sales	14.1%	12.6 - 15.3%
Fringe Benefits to Net Sales	2.8%	2.0 - 3.2%
Payroll & Fringes to Net Sales	17.2%	16.0 - 18.1%
Payroll to Gross Margin	54.1%	52.1 - 54.8%
Fringe Benefits to Gross Margin	9.3%	7.8 - 11.3%
Payroll & Fringes to Gross Margin	62.7%	59.6 - 67.3%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.50X	
% of Whse Sales from Non-Stock Items	6.0%	3.0 - 13.0%
Cost of In-Stock Whse Sales/Ave Inventory	3.42X	
No. of Days Average Inventory Carried	105 Days	
Total Cost of Goods Sold to Ave Inventory	3.95X	2.99 - 5.27X
Whse Gross Margin Return on Ave Inventory	137%	
Turn & Earn Profitability Index	94%	
Percent of Firms on LIFO	55.6%	
ACCOUNTS RECEIVABLE		
Average Collection Period	39 Days	34 - 44 Days
Gross Margin Return on Receivables	245%	228 - 265%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	72.5%	64.6 - 78.9%
31-60 Days Outstanding	13.8%	9.6 - 17.5%
61-90 Days Outstanding	6.3%	4.0 - 8.3%
Over 90 Days Outstanding	7.5%	4.5 - 11.4%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$894	
31-60 Days Outstanding	$1,143	
61-90 Days Outstanding	$1,358	
Over 90 Days Outstanding	$1,662	
Total	$979	
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	81.7%	
31-60 Days Outstanding	10.2%	
61-90 Days Outstanding	3.7%	
Over 90 Days Outstanding	4.4%	
Total	100.0%	

HVAC & OTHER FIRMS -- SALES $6,000,000 TO $12,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	73.9%	71.4 - 76.7%
Gross Margin	26.1%	23.3 - 28.6%
Operating Expenses:		
Selling Expenses	8.1%	5.9 - 7.9%
Delivery Expenses	1.4%	1.1 - 1.6%
Warehouse Expenses	2.3%	1.7 - 2.9%
General & Administrative Expenses	10.3%	8.8 - 11.9%
Occupancy Expenses	1.6%	1.4 - 2.2%
Other Operating Expenses	0.3%	0.0 - 0.5%
Total Operating Expenses	23.9%	22.0 - 25.9%
Net Operating Profit	2.2%	1.3 - 3.4%
Non-Operating Income	2.4%	1.5 - 2.9%
Non-Operating Expenses	1.7%	1.2 - 1.8%
Net Profit Before Tax	2.8%	1.6 - 4.1%
Net Profit After Tax	1.7%	1.3 - 3.2%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	23.9%	22.0 - 25.9%
Total Operating Expense to Gross Margin	92.0%	88.0 - 94.6%
Non-People Expense to Net Sales	7.0%	5.7 - 7.4%
Non-People Expense to Gross Margin	27.0%	22.2 - 31.6%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.8%	0.5 - 1.1%
Times Interest Earned	5.0X	3.1 - 7.8X
BALANCE SHEET		
Cash	3.8%	0.1 - 3.1%
Accounts & Notes Receivable, Trade(Net)	26.4%	22.6 - 29.3%
Inventory	52.9%	53.0 - 59.0%
Other Current Assets	1.4%	0.2 - 1.4%
Total Current Assets	84.6%	82.3 - 90.4%
All Other Assets	15.4%	9.6 - 17.7%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	28.8%	22.4 - 34.2%
Total Long-Term Liabilities	11.9%	6.3 - 19.5%
Total Liabilities	40.7%	32.0 - 48.1%
Total Net Worth	59.3%	51.9 - 68.0%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

HVAC & OTHER FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	5.8%	2.8 - 11.9%
Total Assets to Net Worth	1.7X	1.5 - 2.7X
Net Profit After Tax to Total Assets	3.2%	1.6 - 5.0%
Net Sales to Total Assets	2.6X	2.3 - 2.9X
Net Profit After Tax to Net Sales	1.2%	0.6 - 2.2%
Net Profit Before Tax to Net Worth	9.1%	3.5 - 19.7%
Net Profit Before Tax to Total Assets	5.2%	2.2 - 9.7%
EBIT to Total Assets	7.4%	5.4 - 11.9%
SALES ANALYSIS		
Net Sales($000)	$30,744	$18,038 - 49,785
Percent Sales Change from Prior Year	6.4%	-4.3 - 8.8%
Sales Mix:		
Direct Sales	11.4%	5.0 - 15.6%
Warehouse Sales - Counter and Delivery	88.6%	84.4 - 95.0%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	35.2%	29.0 - 45.0%
Heating & Cooling Supplies & Equipment	31.5%	15.0 - 40.0%
Industrial P-V-F (Pipes-Valves-Fittings)	3.8%	0.0 - 5.0%
Other Industrial Supplies & Equipment	2.6%	0.0 - 3.0%
Other Products	26.9%	2.0 - 49.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	23.9%	21.9 - 26.3%
Gross Margin on Direct Shipments	12.3%	10.8 - 14.5%
Gross Margin on Warehouse Sales	24.8%	22.9 - 27.8%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.96X	2.87 - 3.24X
Total Debt to Net Worth	72.8%	53.0 - 169.4%
Current Debt to Net Worth	62.4%	34.2 - 116.7%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.59X	1.84 - 3.65X
Current Assets Minus Inventory/Curr Debt	1.01X	0.78 - 1.44X
Net Sales to Working Capital	4.5X	4.0 - 6.4X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	3.4%	1.3 - 5.4%
Net Profit Before Tax plus Depreciation to Total Assets	7.5%	3.9 - 13.9%
Working Capital to Total Assets	46.9%	41.3 - 58.7%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	4.7	3.8 - 5.7
Average Invoice Size	$209	$180 - 281
Average Billing Line	$54.09	$41.53 - 66.23

HVAC & OTHER FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$222,093	$208,645 - 259,998
Gross Margin Per Employee	$52,529	$46,942 - 62,331
Average Compensation Per Employee	$24,751	$22,673 - 29,606
Average Fringe Benefits Per Employee	$4,744	$3,365 - 5,961
Compensation & Fringes Per Employee	$29,623	$25,661 - 35,614
Payroll to Net Sales	11.4%	9.3 - 12.7%
Fringe Benefits to Net Sales	1.8%	1.5 - 2.6%
Payroll & Fringes to Net Sales	12.9%	11.3 - 15.6%
Payroll to Gross Margin	47.8%	43.1 - 52.4%
Fringe Benefits to Gross Margin	7.9%	6.8 - 11.0%
Payroll & Fringes to Gross Margin	56.2%	51.2 - 61.0%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.19X	3.06 - 3.99X
% of Whse Sales from Non-Stock Items	10.0%	4.5 - 21.0%
Cost of In-Stock Whse Sales/Ave Inventory	2.84X	2.62 - 3.34X
No. of Days Average Inventory Carried	114 Days	92 - 119 Days
Total Cost of Goods Sold to Ave Inventory	4.00X	3.30 - 4.65X
Whse Gross Margin Return on Ave Inventory	110%	93 - 128%
Turn & Earn Profitability Index	86%	75 - 97%
Percent of Firms on LIFO	68.2%	
ACCOUNTS RECEIVABLE		
Average Collection Period	47 Days	43 - 52 Days
Gross Margin Return on Receivables	182%	168 - 204%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	67.0%	57.2 - 74.3%
31-60 Days Outstanding	16.5%	10.5 - 21.9%
61-90 Days Outstanding	7.0%	3.9 - 9.7%
Over 90 Days Outstanding	9.4%	5.0 - 11.3%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$2,170	$1,313 - 2,434
31-60 Days Outstanding	$2,139	$1,165 - 2,922
61-90 Days Outstanding	$1,492	$1,155 - 1,299
Over 90 Days Outstanding	$2,373	$1,134 - 3,446
Total	$2,085	$1,366 - 2,357
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	67.0%	55.2 - 74.2%
31-60 Days Outstanding	18.3%	12.7 - 18.1%
61-90 Days Outstanding	7.4%	4.6 - 9.5%
Over 90 Days Outstanding	7.4%	2.7 - 5.8%
Total	100.0%	100.0 - 100.0%

HVAC & OTHER FIRMS -- SALES OVER $12,000,000

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	76.1%	73.7 - 78.1%
Gross Margin	23.9%	21.9 - 26.3%
Operating Expenses:		
Selling Expenses	7.3%	4.9 - 9.3%
Delivery Expenses	1.7%	1.2 - 1.9%
Warehouse Expenses	2.6%	2.1 - 3.2%
General & Administrative Expenses	7.6%	6.0 - 9.6%
Occupancy Expenses	2.1%	1.2 - 3.1%
Other Operating Expenses	0.3%	0.0 - 0.0%
Total Operating Expenses	21.5%	19.6 - 23.3%
Net Operating Profit	2.4%	0.7 - 4.1%
Non-Operating Income	1.9%	1.1 - 2.6%
Non-Operating Expenses	1.9%	1.3 - 2.5%
Net Profit Before Tax	2.5%	0.5 - 4.5%
Net Profit After Tax	1.2%	0.6 - 2.2%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	21.5%	19.6 - 23.3%
Total Operating Expense to Gross Margin	90.4%	82.6 - 97.2%
Non-People Expense to Net Sales	8.0%	6.7 - 9.4%
Non-People Expense to Gross Margin	33.5%	28.5 - 37.8%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.9%	0.5 - 1.4%
Times Interest Earned	2.9X	1.6 - 12.1X
BALANCE SHEET		
Cash	3.3%	0.7 - 4.2%
Accounts & Notes Receivable, Trade(Net)	30.3%	26.0 - 33.8%
Inventory	48.4%	42.2 - 52.6%
Other Current Assets	1.3%	0.2 - 1.6%
Total Current Assets	83.3%	77.7 - 89.0%
All Other Assets	16.7%	11.0 - 22.3%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	36.0%	22.4 - 46.0%
Total Long-Term Liabilities	11.9%	2.8 - 12.4%
Total Liabilities	47.9%	34.7 - 62.9%
Total Net Worth	52.1%	37.1 - 65.3%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

HIGH PROFIT HVAC & OTHER FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	12.7%	10.3 - 17.6%
Total Assets to Net Worth	1.5X	1.4 - 1.6X
Net Profit After Tax to Total Assets	8.7%	7.3 - 10.9%
Net Sales to Total Assets	2.4X	2.0 - 2.7X
Net Profit After Tax to Net Sales	4.7%	3.1 - 5.1%
Net Profit Before Tax to Net Worth	21.8%	16.4 - 25.8%
Net Profit Before Tax to Total Assets	13.3%	11.7 - 16.7%
EBIT to Total Assets	13.3%	12.3 - 19.1%
SALES ANALYSIS		
Net Sales($000)	$14,958	$7,955 - 24,073
Percent Sales Change from Prior Year	6.4%	1.1 - 7.5%
Sales Mix:		
Direct Sales	3.6%	1.7 - 7.0%
Warehouse Sales - Counter and Delivery	96.4%	93.1 - 98.3%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	37.0%	29.5 - 45.0%
Heating & Cooling Supplies & Equipment	36.0%	23.0 - 55.0%
Industrial P-V-F (Pipes-Valves-Fittings)	5.8%	0.0 - 10.3%
Other Industrial Supplies & Equipment	5.3%	0.0 - 1.8%
Other Products	16.0%	0.0 - 23.5%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	26.4%	24.0 - 28.2%
Gross Margin on Direct Shipments	17.4%	
Gross Margin on Warehouse Sales	26.5%	25.6 - 28.9%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	2.95X	2.51 - 3.01X
Total Debt to Net Worth	54.1%	41.5 - 58.2%
Current Debt to Net Worth	33.7%	27.4 - 56.2%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	3.65X	2.47 - 4.57X
Current Assets Minus Inventory/Curr Debt	1.04X	0.85 - 2.31X
Net Sales to Working Capital	4.1X	3.3 - 4.8X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	7.4%	
Net Profit Before Tax plus Depreciation to Total Assets	16.7%	
Working Capital to Total Assets	58.3%	54.8 - 62.8%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	6.6	
Average Invoice Size	$231	
Average Billing Line	$38.77	

HIGH PROFIT HVAC & OTHER FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$243,076	$200,289 - 300,312
Gross Margin Per Employee	$64,336	$53,658 - 78,808
Average Compensation Per Employee	$27,620	$23,091 - 37,738
Average Fringe Benefits Per Employee	$5,792	$3,572 - 6,576
Compensation & Fringes Per Employee	$33,764	$26,136 - 47,775
Payroll to Net Sales	12.1%	9.9 - 13.0%
Fringe Benefits to Net Sales	2.0%	1.7 - 2.8%
Payroll & Fringes to Net Sales	14.3%	12.9 - 16.3%
Payroll to Gross Margin	43.2%	40.9 - 51.5%
Fringe Benefits to Gross Margin	8.3%	6.7 - 9.7%
Payroll & Fringes to Gross Margin	52.4%	50.1 - 61.5%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.55X	3.09 - 4.80X
% of Whse Sales from Non-Stock Items	1.0%	
Cost of In-Stock Whse Sales/Ave Inventory	INSUFFICIENT DATA	
No. of Days Average Inventory Carried	103 Days	76 - 118 Days
Total Cost of Goods Sold to Ave Inventory	3.88X	3.18 - 5.21X
Whse Gross Margin Return on Ave Inventory	139%	106 - 170%
Turn & Earn Profitability Index	91%	78 - 116%
Percent of Firms on LIFO	30.0%	
ACCOUNTS RECEIVABLE		
Average Collection Period	38 Days	34 - 42 Days
Gross Margin Return on Receivables	247%	204 - 281%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	75.6%	71.3 - 78.0%
31-60 Days Outstanding	13.2%	7.6 - 18.3%
61-90 Days Outstanding	6.4%	4.1 - 8.1%
Over 90 Days Outstanding	4.8%	2.4 - 5.6%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,631	
31-60 Days Outstanding	$1,576	
61-90 Days Outstanding	$1,094	
Over 90 Days Outstanding	$1,165	
Total	$1,164	$923 - 2,074
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	77.9%	
31-60 Days Outstanding	12.8%	
61-90 Days Outstanding	6.2%	
Over 90 Days Outstanding	3.1%	
Total	100.0%	

HIGH PROFIT HVAC & OTHER FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	73.6%	71.8 - 76.0%
Gross Margin	26.4%	24.0 - 28.2%
Operating Expenses:		
Selling Expenses	6.8%	4.7 - 6.9%
Delivery Expenses	1.7%	1.3 - 2.1%
Warehouse Expenses	2.0%	1.2 - 2.7%
General & Administrative Expenses	8.2%	5.9 - 10.0%
Occupancy Expenses	2.0%	1.4 - 3.3%
Other Operating Expenses	0.8%	0.0 - 1.0%
Total Operating Expenses	21.5%	20.1 - 22.0%
Net Operating Profit	4.9%	3.4 - 6.3%
Non-Operating Income	2.4%	1.4 - 3.4%
Non-Operating Expenses	1.4%	0.9 - 1.8%
Net Profit Before Tax	6.0%	4.8 - 8.1%
Net Profit After Tax	4.7%	3.1 - 5.1%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	21.5%	20.1 - 22.0%
Total Operating Expense to Gross Margin	81.7%	76.3 - 87.6%
Non-People Expense to Net Sales	7.3%	6.6 - 8.5%
Non-People Expense to Gross Margin	27.8%	23.1 - 31.6%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.7%	0.3 - 0.7%
Times Interest Earned	11.7X	7.1 - 14.8X
BALANCE SHEET		
Cash	10.2%	1.2 - 12.1%
Accounts & Notes Receivable, Trade(Net)	24.6%	18.5 - 31.0%
Inventory	48.1%	40.3 - 57.8%
Other Current Assets	1.5%	0.0 - 1.2%
Total Current Assets	84.4%	80.1 - 91.8%
All Other Assets	15.6%	8.2 - 19.9%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	26.6%	18.2 - 35.6%
Total Long-Term Liabilities	7.1%	3.0 - 9.7%
Total Liabilities	33.7%	29.3 - 36.8%
Total Net Worth	66.3%	63.3 - 70.7%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

All Reporting Firms

ALL RESPONDING FIRMS

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	8.5%	4.0 - 15.2%
Total Assets to Net Worth	2.0X	1.5 - 3.0X
Net Profit After Tax to Total Assets	3.7%	1.7 - 7.3%
Net Sales to Total Assets	2.7X	2.2 - 3.1X
Net Profit After Tax to Net Sales	1.3%	0.6 - 2.8%
Net Profit Before Tax to Net Worth	11.3%	5.1 - 19.8%
Net Profit Before Tax to Total Assets	5.2%	2.1 - 10.3%
EBIT to Total Assets	7.9%	5.3 - 11.7%
SALES ANALYSIS		
Net Sales($000)	$7,918	$4,822 - 18,415
Percent Sales Change from Prior Year	3.8%	-1.6 - 11.2%
Sales Mix:		
Direct Sales	9.9%	3.8 - 14.1%
Warehouse Sales - Counter and Delivery	90.1%	85.9 - 96.2%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	53.5%	34.5 - 80.0%
Heating & Cooling Supplies & Equipment	14.1%	0.0 - 25.0%
Industrial P-V-F (Pipes-Valves-Fittings)	20.6%	0.0 - 25.0%
Other Industrial Supplies & Equipment	3.0%	0.0 - 3.0%
Other Products	8.9%	0.0 - 10.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	25.5%	22.1 - 28.2%
Gross Margin on Direct Shipments	12.1%	9.9 - 15.4%
Gross Margin on Warehouse Sales	26.1%	23.2 - 29.2%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.04X	2.72 - 3.55X
Total Debt to Net Worth	95.3%	49.0 - 201.7%
Current Debt to Net Worth	74.0%	36.5 - 149.4%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	2.41X	1.72 - 3.59X
Current Assets Minus Inventory/Curr Debt	1.01X	0.75 - 1.52X
Net Sales to Working Capital	5.2X	3.7 - 8.1X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	2.9%	1.4 - 4.4%
Net Profit Before Tax plus Depreciation to Total Assets	7.2%	3.6 - 11.4%
Working Capital to Total Assets	46.4%	33.4 - 61.2%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	5.0	4.0 - 7.0
Average Invoice Size	$192	$137 - 265
Average Billing Line	$35.38	$25.39 - 55.86

ALL RESPONDING FIRMS

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$220,830	$187,368 - 262,065
Gross Margin Per Employee	$54,942	$46,583 - 65,174
Average Compensation Per Employee	$26,882	$23,412 - 30,726
Average Fringe Benefits Per Employee	$5,041	$3,775 - 6,484
Compensation & Fringes Per Employee	$31,998	$26,959 - 36,668
Payroll to Net Sales	12.1%	10.5 - 14.4%
Fringe Benefits to Net Sales	2.3%	1.7 - 2.9%
Payroll & Fringes to Net Sales	14.6%	12.7 - 17.3%
Payroll to Gross Margin	49.2%	44.4 - 53.5%
Fringe Benefits to Gross Margin	8.9%	7.4 - 11.3%
Payroll & Fringes to Gross Margin	58.3%	53.3 - 63.7%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.87X	3.11 - 4.76X
% of Whse Sales from Non-Stock Items	10.0%	5.0 - 22.8%
Cost of In-Stock Whse Sales/Ave Inventory	3.23X	2.50 - 3.87X
No. of Days Average Inventory Carried	94 Days	77 - 117 Days
Total Cost of Goods Sold to Ave Inventory	4.20X	3.33 - 5.34X
Whse Gross Margin Return on Ave Inventory	133%	105 - 166%
Turn & Earn Profitability Index	96%	79 - 122%
Percent of Firms on LIFO	55.8%	
ACCOUNTS RECEIVABLE		
Average Collection Period	47 Days	40 - 58 Days
Gross Margin Return on Receivables	189%	151 - 232%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	65.2%	55.6 - 73.6%
31-60 Days Outstanding	17.6%	13.5 - 21.9%
61-90 Days Outstanding	7.1%	4.3 - 9.5%
Over 90 Days Outstanding	10.1%	4.6 - 14.3%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$1,383	$904 - 2,210
31-60 Days Outstanding	$1,644	$935 - 2,812
61-90 Days Outstanding	$1,506	$902 - 2,521
Over 90 Days Outstanding	$1,873	$1,136 - 3,374
Total	$1,471	$910 - 2,282
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	67.8%	58.6 - 74.6%
31-60 Days Outstanding	16.7%	12.3 - 21.0%
61-90 Days Outstanding	7.1%	4.2 - 9.3%
Over 90 Days Outstanding	8.3%	4.0 - 10.7%
Total	100.0%	100.0 - 100.0%

ALL RESPONDING FIRMS

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	74.5%	71.8 - 77.9%
Gross Margin	25.5%	22.1 - 28.2%
Operating Expenses:		
Selling Expenses	6.5%	5.0 - 7.9%
Delivery Expenses	1.9%	1.2 - 2.4%
Warehouse Expenses	2.8%	1.6 - 3.5%
General & Administrative Expenses	9.3%	6.9 - 11.0%
Occupancy Expenses	2.2%	1.2 - 2.8%
Other Operating Expenses	0.7%	0.0 - 0.0%
Total Operating Expenses	23.3%	19.8 - 26.6%
Net Operating Profit	2.2%	0.6 - 3.6%
Non-Operating Income	1.9%	1.1 - 2.7%
Non-Operating Expenses	1.9%	1.1 - 2.6%
Net Profit Before Tax	2.2%	0.8 - 3.7%
Net Profit After Tax	1.3%	0.6 - 2.8%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	23.3%	19.8 - 26.6%
Total Operating Expense to Gross Margin	91.6%	86.1 - 97.6%
Non-People Expense to Net Sales	8.4%	6.5 - 9.8%
Non-People Expense to Gross Margin	32.8%	27.6 - 37.6%
INTEREST EXPENSE		
Interest Expense to Net Sales	0.9%	0.5 - 1.6%
Times Interest Earned	2.9X	1.6 - 7.1X
BALANCE SHEET		
Cash	4.7%	0.5 - 5.7%
Accounts & Notes Receivable, Trade(Net)	31.9%	25.0 - 37.7%
Inventory	47.3%	41.1 - 54.3%
Other Current Assets	1.9%	0.3 - 2.3%
Total Current Assets	85.8%	80.5 - 92.5%
All Other Assets	14.2%	7.5 - 19.5%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	38.6%	23.3 - 49.4%
Total Long-Term Liabilities	12.5%	1.6 - 17.4%
Total Liabilities	51.0%	33.5 - 67.4%
Total Net Worth	49.0%	32.6 - 66.6%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

Large Volume Firms

(Those with Sales Volume of $50 Million & Over)

ALL FIRMS WITH SALES VOLUME OF $50 MILLION & OVER

	TYPICAL	MIDDLE RANGE
OVERALL PERFORMANCE MEASURES		
Net Profit After Tax to Net Worth	6.9%	4.4 - 17.4%
Total Assets to Net Worth	2.5X	1.8 - 3.6X
Net Profit After Tax to Total Assets	2.8%	2.2 - 5.7%
Net Sales to Total Assets	2.5X	2.2 - 2.9X
Net Profit After Tax to Net Sales	1.2%	0.8 - 2.1%
Net Profit Before Tax to Net Worth	11.4%	8.1 - 19.5%
Net Profit Before Tax to Total Assets	4.6%	3.2 - 7.9%
EBIT to Total Assets	7.8%	6.4 - 11.7%
SALES ANALYSIS		
Net Sales($000)	$96,106	$56,714 - 424,432
Percent Sales Change from Prior Year	5.6%	-2.1 - 10.4%
Sales Mix:		
Direct Sales	17.2%	14.7 - 21.3%
Warehouse Sales - Counter and Delivery	82.8%	78.8 - 85.3%
TOTAL SALES	100.0%	100.0 - 100.0%
PRODUCT SALES MIX		
Plumbing Supplies & Equipment	52.2%	32.0 - 72.5%
Heating & Cooling Supplies & Equipment	14.3%	0.0 - 17.5%
Industrial P-V-F (Pipes-Valves-Fittings)	15.8%	0.8 - 16.3%
Other Industrial Supplies & Equipment	0.9%	0.0 - 0.0%
Other Products	16.8%	1.5 - 25.0%
TOTAL SALES	100.0%	100.0 - 100.0%
GROSS MARGIN		
Gross Margin on Net Sales	20.9%	18.5 - 22.0%
Gross Margin on Direct Shipments	9.2%	8.9 - 10.3%
Gross Margin on Warehouse Sales	22.0%	21.1 - 25.5%
ASSET AND FINANCIAL MANAGEMENT		
Current Asset Turn (Sales/Current Assets)	3.24X	2.99 - 3.72X
Total Debt to Net Worth	154.9%	74.3 - 309.1%
Current Debt to Net Worth	80.5%	55.8 - 209.6%
CASH MANAGEMENT (WORKING CAPITAL) RATIOS		
Current Assets to Current Debt	1.87X	1.70 - 2.76X
Current Assets Minus Inventory/Curr Debt	0.88X	0.70 - 1.27X
Net Sales to Working Capital	6.5X	4.0 - 8.3X
Net Profit Before Tax plus Depreciation to Net Sales (i.e., "Cash Flow Ratio")	1.7%	0.8 - 3.4%
Net Profit Before Tax plus Depreciation to Total Assets	3.9%	2.4 - 8.6%
Working Capital to Total Assets	36.8%	26.3 - 51.5%
INVOICE/TRANSACTION DATA		
Billing Lines Per Invoice	4.5	4.2 - 5.4
Average Invoice Size	$228	$185 - 300
Average Billing Line	$49.03	

ALL FIRMS WITH SALES VOLUME OF $50 MILLION & OVER

	TYPICAL	MIDDLE RANGE
PERSONNEL PRODUCTIVITY		
Sales Per Employee	$257,330	$246,775 - 306,513
Gross Margin Per Employee	$55,349	$46,492 - 71,785
Average Compensation Per Employee	$27,137	$22,391 - 33,340
Average Fringe Benefits Per Employee	$4,907	$3,752 - 7,051
Compensation & Fringes Per Employee	$31,873	$25,661 - 39,699
Payroll to Net Sales	9.5%	9.1 - 10.5%
Fringe Benefits to Net Sales	1.7%	1.4 - 2.2%
Payroll & Fringes to Net Sales	11.5%	10.8 - 12.0%
Payroll to Gross Margin	48.5%	42.7 - 51.4%
Fringe Benefits to Gross Margin	8.4%	7.0 - 10.8%
Payroll & Fringes to Gross Margin	57.2%	54.5 - 60.0%
INVENTORY MANAGEMENT		
Cost of Whse Goods Sold to Ave Inventory	3.99X	3.46 - 4.39X
% of Whse Sales from Non-Stock Items	12.0%	9.4 - 20.0%
Cost of In-Stock Whse Sales/Ave Inventory	3.23X	2.92 - 3.82X
No. of Days Average Inventory Carried	92 Days	83 - 105 Days
Total Cost of Goods Sold to Ave Inventory	4.53X	4.19 - 5.68X
Whse Gross Margin Return on Ave Inventory	120%	86 - 142%
Turn & Earn Profitability Index	100%	77 - 108%
Percent of Firms on LIFO	66.7%	
ACCOUNTS RECEIVABLE		
Average Collection Period	49 Days	46 - 57 Days
Gross Margin Return on Receivables	143%	124 - 171%
Aging of Receivable Dollars:		
Current (0-30 Days Outstanding)	63.2%	54.5 - 71.5%
31-60 Days Outstanding	18.2%	15.1 - 22.8%
61-90 Days Outstanding	7.6%	6.3 - 9.7%
Over 90 Days Outstanding	11.0%	6.8 - 15.3%
Total	100.0%	100.0 - 100.0%
Average Account Balance:		
Current (0-30 Days Outstanding)	$3,068	
31-60 Days Outstanding	$3,609	
61-90 Days Outstanding	$3,209	
Over 90 Days Outstanding	$3,348	
Total	$3,153	
Aging of Receivable Accounts:		
Current (0-30 Days Outstanding)	61.2%	
31-60 Days Outstanding	19.1%	
61-90 Days Outstanding	7.5%	
Over 90 Days Outstanding	12.3%	
Total	100.0%	

ALL FIRMS WITH SALES VOLUME OF $50 MILLION & OVER

	TYPICAL	MIDDLE RANGE
INCOME STATEMENT		
Net Sales	100.0%	100.0 - 100.0%
Cost of Goods Sold	79.1%	78.0 - 81.5%
Gross Margin	20.9%	18.5 - 22.0%
Operating Expenses:		
Selling Expenses	5.3%	4.5 - 5.9%
Delivery Expenses	1.8%	1.1 - 2.1%
Warehouse Expenses	2.3%	2.0 - 2.6%
General & Administrative Expenses	7.8%	6.4 - 9.3%
Occupancy Expenses	1.7%	1.1 - 2.3%
Other Operating Expenses	0.0%	0.0 - 0.0%
Total Operating Expenses	18.8%	16.3 - 20.8%
Net Operating Profit	2.1%	0.9 - 3.7%
Non-Operating Income	1.7%	1.3 - 1.8%
Non-Operating Expenses	2.5%	1.3 - 3.7%
Net Profit Before Tax	1.2%	0.6 - 2.9%
Net Profit After Tax	1.2%	0.8 - 2.1%
OPERATING EXPENSE CONTROL		
Total Operating Expense to Net Sales	18.8%	16.3 - 20.8%
Total Operating Expense to Gross Margin	90.5%	80.2 - 96.1%
Non-People Expense to Net Sales	6.8%	5.1 - 8.9%
Non-People Expense to Gross Margin	32.7%	23.9 - 36.6%
INTEREST EXPENSE		
Interest Expense to Net Sales	1.4%	0.8 - 1.7%
Times Interest Earned	2.5X	1.5 - 5.3X
BALANCE SHEET		
Cash	1.3%	0.4 - 2.0%
Accounts & Notes Receivable, Trade(Net)	34.3%	29.7 - 36.5%
Inventory	41.7%	38.2 - 48.3%
Other Current Assets	1.6%	0.4 - 2.1%
Total Current Assets	79.0%	74.0 - 87.1%
All Other Assets	21.0%	12.9 - 26.0%
Total Assets	100.0%	100.0 - 100.0%
Total Current Liabilities	42.7%	29.4 - 49.2%
Total Long-Term Liabilities	17.3%	5.1 - 25.3%
Total Liabilities	60.0%	42.6 - 74.3%
Total Net Worth	40.1%	25.7 - 57.4%
Total Liabilities & Net Worth	100.0%	100.0 - 100.0%

Appendix

Survey Methodology/Demographics

In mid March, 1990, the American Supply Association mailed strictly confidential questionnaires to all PHCP wholesale members. The primary intent of this survey was to collect detailed financial and operating information from member firms by specific geographic region, sales volume size and type of product emphasis.

Once the questionnaires were received by Industry Insights, all company identification, if any, was removed and a confidential company identification code assigned. The data was then coded, keyed into the computer and edited by Industry Insights financial analysts for accuracy and consistency. Computer processing was performed on all data to insure statistical validity and to produce the financial and operating ratios contained in this study.

In all, 273 completed and usable questionnaires were received by Industry Insights representing well over 1,000 different wholesaler locations (including headquarters). In particular, the statistical sample consists of the following:

	Number of Reporting Firms
All Reporting Firms	273
By Product Emphasis	
Plumbing Supplies & Equipment Firms (those that obtain more than 50% of sales from plumbing products)	146
Industrial Pipe, Valves and Fittings Firms (those with more than 50% of sales from Industrial PVF)	37
Plumbing Supplies and Industrial Pipe, Valves and Fittings Firms (those with more than 50% of sales from plumbing and Industrial PVF products combined but less than 50% in each category alone)	45
HVAC and Other Emphasis Firms (those companies that cannot be classified in any of the three above groups; or, those firms with less than 50% of sales in combined plumbing supplies and equipment, and Industrial PVF products)	45
By Product Emphasis and Sales Volume Size	
Plumbing Supplies & Equipment Firms:	
Sales Under $4,000,000	28
Sales $4,000,000 to $7,000,000	40

Sales $7,000,000 to $12,000,000 35
Sales Over $12,000,000 43

Industrial Pipe, Valves and Fittings Firms:
Sales Under $5,000,000 11
Sales $5,000,000 to $12,000,000 14
Sales Over $12,000,000 12

Plumbing Supplies and Industrial Pipe, Valves and Fittings Firms:
Sales Under $5,000,000 9
Sales $5,000,000 to $9,000,000 12
Sales Over $9,000,000 23
Sales Volume Not Specified 1

HVAC & Other Emphasis Firms:
Sales Under $6,000,000 11
Sales $6,000,000 to $12,000,000 9
Sales Over $12,000,000 25

Large Volume Firms (those with sales volume of $50 million & over) 16

The statistical information contained in this report is believed to be representative of the companies responding to the survey. All reasonable efforts were taken by Industry Insights, Inc. to assure data comparability within the limitations of accounting reporting procedures. However, the data used in this report are not necessarily based on audited financial statements and the statistical validity of any given number varies depending upon sample sizes and the amount of consistency among responses for that particular ratio. Industry Insights, therefore, makes no representations or warranties with respect to the results of this study and shall not be liable to clients or anyone else for any information inaccuracies, or errors or omissions in contents, regardless of the cause of such inaccuracy, error or omission. In no event shall Industry Insights be liable for any consequential damages.

Fiscal Year-Ends

Among the participants in each year's **Operating Performance Report** it is somewhat interesting to take note of the patterns of fiscal year-end dates. The table below shows that of the firms responding to the 1990 ASA survey, nearly 60% reported that their fiscal year follows the calendar year. Among the 41.3% of firms having non-December fiscal year ends, the majority fell during either the three months before or the three months after December.

Month of Fiscal Year-Ends

Month	Percentage of Companies
January	5.5%
February	7.1
March	5.9
April	2.8
May	1.2
June	3.1
July	2.0
August	1.6
September	4.7
October	3.9
November	3.5
December	58.7
Total	100.0

Ratio Definitions and Sample Calculations

The primary purpose of this ASA **Operating Performance Report** of the PHCP Wholesaler/Distributor and PVF Distributing industries is to provide a basis for comparing your own firm's performance with industry comparatives. In order to do this, it is necessary to calculate your firm's individual company ratios using the same methods that were used to compute the ratios in this report. These definitions appear on the pages which follow.

To further clarify the computational process, this section of the report also contains a completed survey form and sample calculations for a purely hypothetical company.

Note: Those firms that participated in the ASA survey had the opportunity to receive a confidential Company Performance Report. This report presents a company's own ratios and data already computed in a manner consistent with those appearing in the industry report, which are displayed alongside the appropriate industry comparatives. As a result, participating companies received invaluable information about their own business performance without having to spend time and effort to make the calculations manually.

RATIO DEFINITIONS AND SAMPLE CALCULATIONS

Performance Measure	Method of Computation ( ) Indicates Survey Line #	Suggested Uses	Computational Example For Sample Company
OVERALL PERFORMANCE			
Net Profit After Tax to Net Worth (%)	(16) Net Profit After Tax ÷ (27) Net Worth	Overall financial performance from the owner's standpoint.	$69,815 ÷ 1,072,599 = 6.5%
Total Assets to Net Worth (x)	(23) Total Assets ÷ (27) Net Worth	Setting policies concerning amount of debt vs. equity in the business.	$2,369,891 ÷ 1,072,599 = 2.2x
Net Profit After Tax to Total Assets (%)	(16) Net Profit After Tax ÷ (23) Total Assets	Overall financial performance from a management standpoint.	$69,815 ÷ 2,369,891 = 2.9%
Net Sales to Total Assets (x)	(1) Net Sales ÷ (23) Total Assets	Asset management--productivity of total asset base.	$5,884,780 ÷ 2,369,891 = 2.5x
Net Profit After Tax to Net Sales (%)	(16) Net Profit After Tax ÷ (1) Net Sales	Margin management (gross margin and expenses)	$69,815 ÷ 5,884,780 = 1.2%
Net Profit Before Tax to Total Assets (%)	(14) Net Profit Before Tax ÷ (23) Total Assets	Overall financial performance from a management standpoint ignoring tax considerations.	$114,136 ÷ 2,369,891 = 4.8%
EBIT* to Total Assets (%)	[(14) Net Profit Before Tax + (48) Interest] ÷ (23) Total Assets	Same as previous ratio but ignores interest expense (leverage, not operations related)	[[$114,136 + 13,092] ÷ 2,369,891 = 5.4%
SALES ANALYSIS			
Percent Sales Change from prior year	[(1) Net Sales - (39) Previous Years Sales] ÷ (39) Previous Years Sales	Indication of company growth. Caution should be used due to inflationary distortions.	[$5,884,780 - 6,002,478] ÷ 6,002,478 = (2.0)
ASSET AND FINANCIAL MANAGEMENT			
Current Asset Turn (x)	(1) Net Sales ÷ (21) Total Current Assets	Asset management - productivity of current asset base.	$5,884,780 ÷ 2,258,150 = 2.6x
Total Debt to Net Worth (%)	(26) Total Liabilities ÷ (27) Net Worth	Measures overall leverage. Use to set policy of how much debt is employed relative to owner's funds.	$1,297,292 ÷ 1,072,599 = 120.9%
Current Debt to Net Worth (%)	(24) Current Liabilities ÷ (27) Net Worth	A measure of the financial mix of the firm.	$520,042 ÷ 1,072,599 = 48.5%
Current Assets to Current Debt (x)	(21) Total Current Assets ÷ (24) Total Current Liabilities	Good overall measures of liquidity. Used to stay within guides set by suppliers and creditors.	$2,258,150 ÷ 520,042 = 4.3x
Current Assets Less Inventory to Current Debt (x)	[(21) Total Current Assets - (19) Inventory] ÷ (24) Total Current Liabilities	Same as above ratio.	[$2,2258,150 - 983,840] ÷ 520,042 = 2.5x
WORKING CAPITAL			
Net Sales to Working Capital (x)	(10) Net Sales ÷ [(30) Current Assets - (33) Current Liabilities]	Measures the number of times working capital is needed to support sales. A low ratio may indicate unprofitable use of working capital while a very high ratio often signifies overtrading.	$6,320,254 ÷ ($2,525,252 - $668,082) = 3.4x

*EBIT refers to "Earnings Before Interest and Taxes."

RATIO DEFINITIONS AND SAMPLE CALCULATIONS

Performance Measure	Method of Computation ( ) Indicates Survey Line #	Suggested Uses	Computational Example For Sample Company
Net Profit Before Tax plus Depreciation to Net Sales (%)	[(23) Net Profit Before Tax + (85) Depreciation] ÷ (10) Net Sales	Since depreciation is a non-cash expense, this measure adds depreciation back to profits to get a measure of the "real cash return" on sales.	($41,539 + $18,310) ÷ $6,320,254 = 0.9%
Net Profit Before Tax Plus Depreciation to Total Assets (%)	[(23) Net Profit Before Tax + (85) Depreciation] ÷ (32) Total Assets	Since depreciation is a non-cash expense, this measure adds depreciation back to profits to get a measure of the "real cash return" on assets.	($41,539 + $18,310) ÷ $2,645,263 = 2.3%
Working Capital to Total Assets (%)	[(30) Current Assets - (33) Current Liabilities] ÷ (32) Total Assets	A measure of liquidity, this compares net liquid assets to total assets. This measure is one component of the Z score.	($2,525,252 - $668,082) ÷ $2,645,263 = 70.2%
TRANSACTION			
Billing Lines Per Invoice	(45) Annual Billing Lines ÷ (44) Total Number of Invoices	Gives some indication of invoicing efficiency.	171,872 ÷ 21,484 = 8
Average Invoice Size ($)	(1) Net Sales ÷ (44) Total Number of Invoices	Indicates the typical size of an invoice and thus add-on purchase efficiency.	$5,884,780 x .83 ÷ 21,484 = $227.35
Average Billing Line ($)	(1) Net Sales ÷ (45) Annual Billing Lines	Indicates the size of a typical item billed.	$5,884,780 x .83 ÷ 171,872 = $28.42
PERSONNEL PRODUCTIVITY			
Payroll to Net Sales (%)	(29) Total Payroll Expenses ÷ (1) Net Sales	Overall indicator of payroll cost control. Inflation proof. Compare: overtime; vs. industry; by store	$604,313 ÷ 5,884,780 = 10.3%
Fringe Benefits to Net Sales (%)	(30) Total Fringe & Payroll Taxes ÷ (1) Net Sales	Indicates how much of sales are paid in fringe benefits. Compare: overtime; vs. industry.	$234,303 ÷ 5,884,780 = 4.0%
Payroll and Fringes to Net Sales (%)	[(29) Payroll Expense + (30) Fringe Benefits] ÷ (1) Net Sales	Indicator of all personnel related costs.	[$604,313 + 234,303] ÷ 5,884,780 = 14.3%
Payroll to Gross Margin (%)	(29) Total Payroll Expense ÷ (3) Gross Profit on Sales	Indicates the portion of gross profits that are used in payroll costs.	$604,313 ÷ 1,492,481 = 40.5%
Fringe Benefits to Gross Margin (%)	(30) Total Fringe Benefits ÷ (3) Gross Profit on Sales	Same as above but relative to fringe benefits.	$234,303 ÷ 1,492,481 = 15.7%
Payroll and Fringes to Gross Margin (%)	[(29) Total Payroll + (30) Total Fringes] ÷ (3) Gross Profit on Sales	Indicator of all personnel related costs that are used in gross margin production.	[$604,313 + 234,303] ÷ 1,492,481 = 56.2%
INVENTORY MANAGEMENT			
Cost of Warehouse Goods Sold to Average Inventory (x)	[(34) Total Warehouse Sales - (37) Warehouse Gross Profit] ÷ {[(19) Inventory + (40) Previous Years Inventory] ÷ 2}	Measure of inventory productivity. Compare to industry, over time or product categories.	[$5,240,136 - 1,396,217] ÷ [(983,840 + 992,313) ÷ 2] = 3.9x
Number of Days Average Inventory Carried	{[(19) Inventory + (40) Previous Years Inventory] ÷ 2} ÷ {[(34) Warehouse Sales - (37) Warehouse Gross Profit] ÷ 365}	Similar in value to above measure. Shows how quickly inventory is moving.	[($983,840 + 992,313) ÷ 2] ÷ [(5,240,136 - 1,396,217) ÷ 365] = 94 days

RATIO DEFINITIONS AND SAMPLE CALCULATIONS

Performance Measure	Method of Computation ( ) Indicates Survey Line #	Suggested Uses	Computational Example For Sample Company
Total Cost of Goods Sold to Average Inventory (x)	(2) Total Cost of Goods Sold ÷ [(19) Inventory + (40) Previous Years Inventory) ÷ 2]	Shows how many times you were able to "turn over" your inventory.	$4,392,299 ÷ [(983,840 + 992,313) ÷ 2] = 4.4x
Warehouse Gross Margin Return on Average Inventory (%)	(37) Warehouse Gross Profit ÷ {[(19) Inventory + (40) Previous Years Inventory] ÷ 2}	Overall measure of inventory, profitability and productivity. Combines margin and turnover.	$1,396,217 ÷ [(983,840 + 992,313) ÷ 2] = 141.3%
Turn & Earn Profitability Index (%)	{[(34) Warehouse Sales - (37) Warehouse Gross Profit] ÷ [(19) Inventory + (40) Previous Years Inventory] ÷ 2} x {[(37) Warehouse Gross Profit ÷ (34) Warehouse Sales] x 100}	Another return-on-investment measure which combines margin and turnover.	[($5,240, 136 - 139,217) ÷ (983,840 + 992,313) ÷ 2] x [(1,396,217 ÷ 5,240,136) x 100] = 103.9
ACCOUNTS RECEIVABLE Average Collection Period	(18) Accounts & Notes Receivable (net) ÷ [(1) Net Sales x (1.0 - (44) % Cash Sales) ÷ 365]	Measuring effectiveness of various collection policies. Compare to industry and over time.	1,096,734 ÷ [5,884,780 x (1.0 - .17) ÷ 365] = 82 days
Gross Margin Return on Receivables (%)	{[(3) Gross Profit ÷ (1) Net Sales] x 100} x (365 ÷ Average Collection Period)	Indicator of how much gross margin dollars are being generated on your accounts receivables.	[(1,492,481 ÷ 5,884,780) x 100] x [365 ÷ 82] = 112.9%
OPERATING EXPENSE CONTROL Total Operating Expense to Net Sales (%)	(10) Total Operating Expenses ÷ (1) Net Sales	Conventional measure used for controlling total operating costs.	$1,323,621 ÷ 5,884,780 = 22.5%
Total Operating Expense to Gross Margin (%)	(10) Total Operating Expense ÷ (3) Gross Profit	A somewhat more specific measure than the one above.	$1,323,621 ÷ 1,492,481 = 88.7%
Non-People Expense to Net Sales (%)	[(10) Total Operating Expense - [(29) Payroll + (30) Fringes]} ÷ (1) Net Sales	A measure for controlling all operating costs except personnel costs.	[$1,323,621 - (604,313 + 234,303)] ÷ 5,884,780 = 8.2%
Non-People Expense to Gross Margin (%)	{(10) Total Operating Expense - [(29) Payroll + (30) Fringes]} ÷ (3) Gross Profit	Same as above but somewhat finer.	[$1,323,621 - (604,313 + 234,303)] ÷ 1,492,481 = 32.5%
INTEREST EXPENSE Interest Expense to Net Sales (%)	(46) Interest Expense ÷ (1) Net Sales	An indicator of how much debt financing is costing the firm relative to sales.	$13,092 ÷ 5,884,780 = 0.2%
Times Interest Earned (x)	[(14) Net Profit Before Taxes + (46) Interest] ÷ (46) Interest	Indicates the ease in which your company can pay interest costs out of earnings.	[$114,136 + 13,092] ÷ 13,092 = 9.7x

CONFIDENTIAL

1990
Operating Performance Survey
(Based on 1989 Fiscal Year Results)

This 1990 ASA Operating Performance Survey (of 1989 financial information) promises to be the best ever. By filling out as much information as possible on this survey questionnaire (or the enclosed optional, shorter version of the form) you will be assured of receiving a detailed confidential analysis report of your business. This will contain financial benchmarks alongside your own firm's results to help you identify strengths and weaknesses, and improvement opportunities.

General Information

- This confidential questionnaire is designed to require a minimum of effort on your part. For your convenience, you have the option of filling out this entire form, or the shorter version. The more information you provide, the more you will get back about your company.
- **If you cannot fill out every line, just do what you can. It is OK to leave blanks.**
- Enter figures from your completed year which ended nearest to December 31, 1989. While full year data is required, **you do not need to wait for audited results from your accountant.**
- Please report round numbers only; show dollar figures without pennies.
- Please report on the basis of your total firm rather than for individual branches.
- Refer to the accompanying **Description of Operating Expense Categories** for help in filling out lines 4 through 10.
- If you need help, call Tom Noon of Industry Insights at 614/442-6626; or, if you prefer, fill out what you can and forward your financial statements to Industry Insights. We will fill out the rest of the form for you.
- **All responses will be kept in strictest confidence by** Industry Insights, Inc.
- Use the enclosed, self-addressed envelope to return this **confidential** form to:

Industry Insights, Inc.
1585 Bethel Road
Columbus, OH 43220

Early Response Deadline: April 6, 1990
(to receive a quick turnaround **Executive Summary Profile** of your business)

Final Response Deadline: May 18, 1990

Confidential

AMERICAN SUPPLY ASSOCIATION
1990 ANNUAL OPERATING PERFORMANCE SURVEY
(Based on 1989 Financial Results)

CLASSIFICATION DATA

Ending 12 month period upon which data is based: MM/DD/YY_____(1)

Number of locations (including headquarters) which are included in the data reflected on this survey form.
(Do not submit separate forms for branches.) _____(2)

Regional Identification: (check only one of the boxes below)

	Territory	Regional Association Affiliate
1)	☐ CT, ME, MA, NH, RI, VT	NEWA
2)	☐ NY (excluding NYC)	NYSPHW
3)	☐ Long Island and Metro NY	MNYPHW
4)	☐ DE, E.PA, MD, NJ, Wa. DC	MAWA
5)	☐ IN, OH, W.PA, WV	CWA
6)	☐ AL, FL, GA, KY, MS, NC, SC, TN, VA	SWA
(3) 7)	☐ Michigan (excluding upper MI)	MAD
8)	☐ Metro Chicago, Northern IL	CMDA
9)	☐ IA, KS, MN, MO, NE, ND, SD, Upper MI, WI, Southern IL	MASA
10)	☐ LA, TX, NM, OK, AR, CO	WDA
11)	☐ Rocky Mountain (ID, MT, WY), Pacific NW (AK, OR, WA) HI, N.CA, N.VN	WSA
14)	☐ AZ, S.CA, S.NV, UT	PSDA

Product Sales Mix: Please indicate the percentage of your total company sales accounted for by each type of product (estimate if necessary).

(4)_____ Plumbing Supplies & Equipment, Including Plumbing Pipe, Valves & Fittings
(5)_____ Hydronic & Warm Air Heating & Air Conditioning Supplies & Equipment
(6)_____ Industrial PVF (Industrial Pipe, Valves & Fittings)
(7)_____ Other Industrial Supplies & Equipment
(8)_____ Other (please specify) _____
(9) 100% Total

INDIVIDUAL COMPANY PERFORMANCE REPORT "PEER" GROUP COMPARISON PREFERENCE (OPTIONAL)

If you prefer to designate a particular peer group to be included as the comparative in your firm's confidential profile report (rather than having the computer automatically make the determination), please do so by checking one of the following:

☐ Plumbing Equipment & Supply Firms (1)
☐ Plumbing & Industrial Pipe, Valves and Fittings Firms (3)
☐ Industrial Pipe, Valves & Fittings Firms (2)
☐ HVAC and Other Emphasis Firms (4)

(185)

Indicate below to whom any questions regarding this form should be directed and to whom the final report should be sent. Industry Insights will detach this coupon upon receipt to assure confidentiality.

Company Name_____ Phone #_____

Street Address_____ City_____State _____ZIP _____

Person to contact with questions about data_____

Person to whom report should be sent_____ CODE # _____

Participation fee: Please enclose your check, payable to ASA, in the amount of $25. Illinois residents include appropriate sales tax.

amounts_____ check # _____ date received _____

Send to: Industry Insights, Inc., PO Box 20127, Columbus, OH 43220-0127

Line #	INCOME STATEMENT ITEMS	Code #	AMOUNT IN $ (omit cents)
1	Net Sales (include direct shipments. Deduct claims, returns & allowances but not cash discounts allowed on sales. Exclude sales taxes.)	(10)	$
2	Cost of Goods Sold (include inbound transportation costs. Subtract purchase claims, returns and allowances but not cash discounts on purchases) (FIFO basis)*.	(11)	$
3	Gross Profit on Sales (Line 1 minus Line 2) (FIFO Basis)	(12)	$
4	Selling Expenses (refer to definition sheet)	(13)	$
5	Delivery Expenses (refer to definition sheet)	(14)	$
6	Warehouse Expenses (refer to definition sheet)	(15)	$
7	General & Administrative Expenses (refer to definition sheet)	(16)	$
8	Occupancy Expenses (refer to definition sheet)	(17)	$
9	Other Operating Expenses (refer to definition sheet)	(18)	$
10	Total Operating Expenses (Sum of Lines 4 through 9)***	(19)	$
11	Net Operating Profit (Line 3 minus Line 10) (FIFO)	(20)	$
12	Non-Operating Income (include cash discounts on purchases, interest earned and other income items not directly related to the primary operations of the business)	(21)	$
13	Non-Operating Expenses (include cash discounts allowed on sales, interest paid, losses on sales of fixed assets, and other non-operating expenses or losses not already included above)	(22)	$
14	Net Profit Before Taxes (Line 11 plus Line 12 minus Line 13) (FIFO)	(23)	$
15	Income Taxes (Federal, State & City)	(24)	$
16	Net Profit After Income Taxes (Line 14 minus Line 15) (FIFO)	(25)	$

BALANCE SHEET ITEMS			
17	Cash (include savings accounts, CD's & other temporary investments)	(26)	$
18	Accounts & Notes Receivable, Trade (Net)	(27)	$
19	Inventory (FIFO Basis)	(28)	$
20	Other Current Assets (Such as prepaid items, supplies, etc.)	(29)	$
21	Total Current Assets (Sum of Lines 17 thru 20)	(30)	$
22	All Other Assets (Any Assets not included above)	(31)	$
23	Total Assets (Sum of Lines 21 and 22) (Equal to Line 28) (FIFO)	(32)	$
24	Total Current Liabilities (Due in less than 1 year)	(33)	$
25	Total Long-Term Liabilities (Due in more than 1 year)	(34)	$
26	Total Liabilities (Sum of Lines 24 and 25)	(35)	$
27	Total Net Worth (or Owner's Equity) (FIFO)**	(36)	$
28	Total Liabilities & Net Worth (Sum of Lines 26 and 27) (Equal to Line 23)	(37)	$

* If on LIFO, subtract your "Annual Additions to your LIFO reserves" from your cost of goods sold to obtain FIFO cost of goods sold.

** If on LIFO, add your total LIFO reserve to your book net worth to get your FIFO net worth.

*** If you are a Subchapter S Corporation or a partnership, allocate an appropriate management salary for Owner-Managers to the applicable operating expense category(s) and to total operating expense. This would be an amount similar to what would have to be paid to a non-equity owning manager or managers. Doing this will assure that your numbers will be comparable to corporations paying separate management salaries

LINE #	COMPENSATION DATA	CODE #	AMOUNT IN DOLLARS (omit cents)
29	Total Payroll Expenses (include salaries, bonuses and commissions paid to all employees, including owners; exclude fringe benefits and payroll taxes)	(38)	$
30	Total of Fringe Benefit Payments and Payroll Taxes (include Company pension and profit sharing payments plus FICA, Workman's Compensation, Unemployment, Group Insurance, etc., for all employees, including owners)	(39)	$
31	Gross income of the Highest Paid Employee, including Owners (refer to the person's W-2 statement gross income - as from salaries, commissions and bonuses, but excluding fringe benefits and payroll taxes.)	(40)	$
32	Gross income (as above) of the Second Highest Paid Employee (including Owners)	(41)	$

WAREHOUSE AND DIRECT SALES DATA			
33	Dollar Amount of Direct (Drop) Shipment Sales	(42)	$
34	Dollar Amount of Warehouse Sales (Counter & Delivery)	(45)	$
35	Total Sales (Sum of Lines 33 and 34) (Equal to Line 1)	(46)	$
36	Dollar Amount of Gross Profit on Direct (Drop) Shipments	(47)	$
37	Dollar Amount of Gross Profit on Warehouse Sales (Report on FIFO Basis)	(48)	$
38	Total FIFO Gross Profit (Sum of Lines 36 and 37) (Equal to Line 3)	(49)	$

ADDITIONAL DATA			
39	Previous Year's Net Sales	(50)	$
40	Previous Year's Ending Inventory (FIFO Basis)	(51)	$
41	Average Number of Employees During 1989 (include all management personnel and all other employees. Convert part-time employees into full-time equivalents depending upon how much they worked relative to full-time employees. For example, two half-time employees each working twelve months would be counted as one employee)	(52)	#
42	Percent of Total 1989 Sales that were made for Cash (estimate if necessary)	(53)	%
43	Were you on a LIFO inventory valuation system during 1989?	(54)	Yes ☐ No ☐
44	Total Number of Customer Invoices During the Year (optional)	(55)	#
45	Annual # of Billing Lines on Customer Invoices (optional)	(56)	#
46	Interest Paid in 1989 (also include this amount on Line 13)	(57)	$
47	Percent of Warehouse Sales coming from Non-Stock Items (optional)	(87)	%
48	Total 1989 Depreciation Expense	(85)	$

DETAIL OF ACCOUNTS RECEIVABLE (YEAR END)					
LINE #		CODE #	NUMBER OF ACCOUNTS	CODE #	AMOUNT IN DOLLARS (omit cents)
49	Current (0 - 30 Days Outstanding)	(58)	#	(64)	$
50	31 - 60 Days Outstanding	(59)	#	(65)	$
51	61 - 90 Days Outstanding	(60)	#	(66)	$
52	Over 90 Days Outstanding	(61)	#	(67)	$
53	Total Accounts Receivable (Sum of Lines 49 thru 52) (Equal to Line 18)	(63)	#	(69)	$

DESCRIPTION OF OPERATING EXPENSE CATEGORIES

Selling Expenses

Selling executive salaries, commissions and bonuses; outside and inside salespeople salaries, commissions and bonuses; other selling personnel (clerical, secretarial and order takers) salaries, bonuses and wages; selling personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions; profit-sharing trust contributions; other employee welfare; officer's life insurance).

Selling related: supplies; stationery; printing; automobile expense; travel and entertainment; dues and memberships; conventions and meetings; education and training; advertising; promotions; brochures; showrooms; merchandise shows; miscellaneous.

Delivery Expenses

Delivery supervisor(s) salaries and bonuses; other delivery personnel (clerical, secretarial, drivers) salaries, bonuses and wages; delivery personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions; profit-sharing trust contributions; other employee welfare).

Delivery related: supplies; gas and oil; tires; other automotive supplies; towel and uniform services; trucks, automobiles and other equipment repairs and maintenance; insurance (automobiles and trucks); licenses; equipment rental; trucks, automobiles and other equipment depreciation; dues and memberships; education and training; travel and entertainment; delivery services (cartage, freight, express); miscellaneous.

Warehouse Expenses

Warehouse supervisor salaries and bonuses; other warehouse personnel (clerical, secretarial, laborers, and other) salaries, bonuses and wages; warehouse personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions; profit-sharing trust contributions; other employee welfare).

Warehouse related: supplies; travel and uniform services; equipment repairs and maintenance; insurance (inventory); equipment rental and depreciation; education and training; travel and entertainment; miscellaneous.

General Administrative Expenses

Executive salaries and bonuses; supervisor salaries and bonuses; other salaries and bonuses (including buyers); general and administrative personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions; profit-sharing trust contributions; other employee welfare; officer's life insurance).

General and administrative related expenses (including purchasing expenses): supplies; stationery and printing; travel and uniform services; telephone and telegraph; postage; automobiles and other equipment repairs, maintenance, and depreciation; insurance (property, automotive, etc.); license, equipment and automobile rental; furniture and fixtures depreciation; automobile expense; travel and entertainment; dues and memberships; conventions and meetings; education and training; employment advertising; collection expense; cash over or short; donations; accounting services; legal services; other services; directors fees; miscellaneous. Also includes bad debts written off.

Occupancy Expenses

Facilities management supervisor salaries and bonuses; janitor and maintenance personnel wages; occupancy personnel fringe benefits (life insurance; hospitalization; other employee insurance; social security taxes; unemployment taxes; pension trust contributions, profit-sharing trust contributions; other employee welfare).

Janitor and maintenance supplies; building equipment repairs and maintenance; janitor services; building and building equipment insurance; real estate taxes; rent (if applicable); building equipment rental; utilities (power, light, water, heat); building and building equipment depreciations (if applicable); miscellaneous.

Other Operating Expenses

All operating expenses not specified above.